NEXT ANNUAL SESSIONS
American Medical Association, Atlantic City, June 7–11, 1937
California Medical Association, Hotel Del Monte, Monterey County, May 3–6, 1937

CALIFORNIA AND WESTERN MEDICINE

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CONTENTS AND SUBJECT INDEX

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CALIFORNIA AND WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

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California and Western Medicine

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EDITOR . . . . . GEORGE H. KRESS

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Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

DEPARTMENT INDEX

(Itemized Index of Articles is printed on Front Cover)

EDITORIALS†

THE MILL OF THE FIFTY-SECOND CALIFORNIA LEGISLATURE

Tentative Report on Bills Introduced.—At this writing it is not possible to give much information concerning proposed laws with public health implications which, up to the present, have been submitted to the Fifty-second California Legislature, now in session; because most of the important measures are still in their formative drafts.

At a meeting of the Council held in San Francisco on January 16, Dr. Junius B. Harris of Sacramento, chairman of the California Medical Association Committee on Public Policy and Legislation, gave a bird's-eye view of the legislative situation, and the picture he painted was in line with former experiences. The Council minutes record the action taken by that body in its all-day session.*

* * *

Three Important Measures: Medical Practice Act Codification; Medical Service Associations; Hospitalization Plan.—Three measures, in which the members of the California Medical Association have a special interest at this time, are:

1. The Medical Practice Act, as revised by the Code Commission. Through conference between representatives of the State Board of Medical Examiners, the California Medical Association and of the State Code Commission, it is hoped that the laws governing medical practice, in the new code, have been clarified without in any way detracting from their power.

2. The proposed law governing Medical Service Associations, as prepared by the Council's Special Committee and legal counsel, was carefully considered by the Council, section by section, and authority given to submit it to the Legislature. (See Item 13 in Council minutes.)

One or more measures of somewhat similar purpose have already been introduced on behalf of interests whose identity is not known. More of these in later issues.

3. A proposed Hospital Service law, sponsored by the Associated Hospitals of Southern California, was read, discussed and approved by the Council, and the chairman of the Los Angeles

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

* Council minutes are printed in this issue, on page 120.

County Medical Association Committee, Dr. William H. Kiger, was given authority to have the bill presented to the Legislature. This bill will take the place of Assembly Bill 246, which was enacted by the previous legislature, and contains provisions which the State Insurance Commissioner feels will add to its value and safeguards.

* * *

Other Proposed Laws.—Six skeleton bills to amend Medical Practice Act:

Among other items of proposed legislation, it may be of interest to note that one assemblyman has introduced a half-dozen "skeleton bills" to amend the Medical Practice Act; the entire texts of which measures, at the time of this writing, contain nothing more than the meager language:

An act to amend Chapter 5 of the Business and Professions Code, relating to the practice of medicine and surgery, and other modes of treating the sick or afflicted.

The people of the State of California do enact as follows:

1 Section 1.

What this assemblyman proposes later, on behalf of himself and friends, to insert in his array of measures, remains to be seen!

* * *

Clinical Histories of Patients No Longer Confidential(?):

Assembly Bill No. 385 is not long, and will probably shock most physicians and hospitals, who are prone to look upon history records as confidential communications. It is a joint presentation of seven assemblymen; and because of its comparative brevity, it is here printed in full:

ASSEMBLY BILL No. 385

Introduced by Messrs. Clark, Peek, Hornblower, Lore, Pelletier, Hawkins, and Rosenthal

January 13, 1937

Referred to Committee on Hospitals and Asylums

An act to add section 10½ to the Workmen's Compensation, Insurance and Safety Act of 1917, relating to records of persons receiving compensation thereunder.

The people of the State of California do enact as follows:

SECTION 1. A new section is hereby added to the Workmen's Compensation, Insurance and Safety Act of 1917, to be numbered Section 10½ and to read as follows:

Sec. 10½. All records of any hospital, clinic, sanitarium, physician, surgeon, or other person or institution in respect to services rendered to any person under the provisions of Section 6 of this Act, including but not restricted to x-rays and histories of injuries and diagnoses, shall be exhibited to the patient and to any person authorized in writing by him to examine the same. Any such person or patient shall be permitted to make copies of such records, including, but not restricted to, photostatic copies. Violation of any of the provision of this section shall constitute a misdemeanor.

* * *

Assembly Bill No. 384, a bill couched almost in the same language, is entitled:

An act to add Section 4055.5 to the Labor Code, relating to records of persons receiving compensation thereunder.

The people of the State of California do enact as follows:

* * *

False Advertising by Radio:

Then there is Assembly Bill No. 288 which, if enacted, may apply to some of the atrocious misrepresentations so frequently heard in radio broadcasts concerning curative agents. It is entitled:

An act to add Section 654d to the Penal Code, relating to false advertising by radio, and providing penalties for the violation thereof.

The people of the State of California do enact as follows:

* * *

Milk Production and Distribution:

Two bills having to do with milk (Heisinger Assembly Bill 50 and Thorp Assembly Bill 77) are commented upon by Dr. J. C. Geiger in the Letters department of this issue. (See page 132.)

* * *

Pay Patients in County Hospitals:

Assembly Bill No. 51, introduced by Mr. Heisinger, has been referred to the Committee on County Government, its short title being "County Hospitals Admission Amendment." It would permit a county board of supervisors to "provide for the admission of pay patients to the county hospital."

* * *

Narcotic and Other Measures:

Among other bills are several which deal with narcotic regulations, the licensing of clinical laboratory technologists and technicians, and various public health matters.

These and other proposed laws will receive comment in later issues of the OFFICIAL JOURNAL.

A NATIONAL DEPARTMENT OF PUBLIC HEALTH

The Effort Twenty-five Years Ago.—About twenty-five years ago considerable effort was made by the medical profession throughout the country to secure the enactment of legislation that would provide for an additional department—that of Public Health—to be represented in the cabinet of the President of the United States. Those endeavors, however, made very little impression upon Congress or the lay public. As a matter of fact, the attempt brought such a disheartening response that some who had enlisted in the cause came to the conclusion that it was a proposition almost permanently hopeless.

In the same issue of the OFFICIAL JOURNAL,* in which these comments appear, is also printed a paragraph written twenty-five years ago by the late Philip Mills Jones, as follows:

Owen Bill.—A number of requests for a copy of the last Owen bill to create a Department of Public Health have been received, and as the matter is of the greatest importance to public health, the *Journal* elsewhere in this issue, prints the bill in full. It will probably be some time before the Congress will enact any law of this nature, and it is quite possible that when such a law is finally passed it will differ somewhat from the present proposed measure . . . California State Journal of Medicine, Vol. X, No. 2, February, 1912.

* * *

Different Attitude With Changing Times.—However, times have changed, and with the social unrest of the past few years, a shift of view has

* See Twenty-five Years Ago department, on page 144.

taken place, and given rise to a movement to bring into existence not one, but two or more new administrative departments in the national government, each to include bureaus doing work in associated fields, but which, at the present time, have places in departments far apart in their basic organization and activities.

* * *

Recent Action of the American Medical Association Trustees.—In January, at a special meeting of the Board of Trustees of the American Medical Association, that body adopted the following resolutions worthy of the thought of every licensed physician and surgeon:

Recognizing that committees of the Senate and of the House of Representatives of the United States Government, and a special committee appointed by the President are at this time concerning themselves with the reorganization of government activities with a view to greater efficiency and economy, and recognizing also that the President, in his opening address to Congress, indicated that he would shortly present to the Congress recommendations for such reorganization of governmental activities in the executive branches, and recognizing, moreover, the great desirability that all activities of the Federal Government having to do with the promotion of health and the prevention of disease might with advantage be consolidated in one department and under one head, the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory or other governmental interest. It has been repeatedly said that public health work is the first problem of the State. It is the opinion of the Board of Trustees that health activities of the Government, except those concerned with the military establishments, should not be subservient to any other departmental interests. This reorganization and consolidation of medical departments need not, under present circumstances, involve any expansion or extension of governmental health activities, but should serve actually to consolidate and thus to eliminate such duplications as exist. It is also the view of the Board of Trustees that the supervision and direction of such medical or health department should be in the hands of a competently trained physician, experienced in executive administration.

In which statement we would call particular attention to the words:

"... the Board of Trustees of the American Medical Association would recommend that such health activities as now exist be so consolidated in a single department which would not, however, be subservient to any charitable, conservatory, or other governmental interest."

* * *

County Medical Society Resolutions.—In resolutions, which later may be considered by component county societies of the California Medical Association, the above requisites should always be emphasized. We must all acknowledge that the experiences of the last several years, in California and other states of the Union, have amply and repeatedly demonstrated to physicians the real and serious danger to high standards of medical practice when lay theorists—whether professors of economics, statisticians, directors of foundations, advanced social-service workers, or paid or free-lance propagandists—are given positions of responsibility in which they have direct or indirect supervision over the professional work of physicians and surgeons.

A National Department of Public Health With Its Secretary in the President's Cabinet Is Needed.—The United States of America needs very much a national Department of Public Health, having as its head "a competently trained physician, experienced in executive administration"; but it would be a deplorable error to link up the United States Public Health Service, and other affiliated agencies in preventive and curative medicine, with social welfare and similar groups; which, because of more intimate contacts with political influences, would be almost certain to warp and handicap real progress in work for the national public health.

* * *

California Medical Association Council Is in Accord With the American Medical Association Policy.—In view of the action taken by the Board of Trustees of the American Medical Association* (with which the Council of the California Medical Association is in full sympathy), it is quite in order for every component county society to pass proper resolutions, to be sent to Senators Hiram Johnson and William McAdoo, and to the congressmen of their respective districts, with an explanatory letter of transmittal asking coöperation and support for a national Department of Public Health organized along lines as above indicated. Members or committees in component county societies, therefore, who are interested should confer with one another and draw up such resolutions to be presented at early meetings. If preliminary drafts of resolutions are sent to the Association Secretary, he will be glad to advise and suggest. In any case, copies of resolutions, with the names of senators and congressmen to whom they have been sent, should be forwarded to the Central Office of the Association, at San Francisco.

"SECURITY FOR THE DOCTOR MEANS INSECURITY FOR THE PATIENT"

President of Medical Society of State of New York Speaks.—A newspaper item which recently appeared in the Syracuse *Herald*, containing excerpts from an address by Dr. Floyd B. Winslow, president of the Medical Society of the State of New York, has been called to our attention. Doctor Winslow's incisive remarks are worthy of perusal and are submitted for the consideration of the readers of CALIFORNIA AND WESTERN MEDICINE. Quotations follow:

Dr. Floyd B. Winslow of Rochester, President of the Medical Society of the State of New York, is assailing attempts to "foist" compulsory sickness insurance in this country.

In a speech to 150 physicians gathered in annual convention from seven upstate counties, Doctor Winslow said:

"Security for the doctor means insecurity for the patient."

He characterized as socialized medicine certain plans being promoted for compulsory sickness insurance.

"The advocates of these measures," he said, "lure the profession with the siren song of bureaucratic jobs, as-

* See *Journal of the American Medical Association*, January 16, 1937, page 208.

sured income—security—false security. We do not want to be secure. We want to remain insecure. We want to be required to continue to give our very best to every patient, or lose out in the gentlemanly competition which exists within our ranks.

"This is an incentive that operates to our insecurity, but to the security to the patient. We prefer the discipline of private practice which keeps us on our toes, to an assured income under bureaucratic control where our highest ambition is more likely to be to keep ourselves solid with the politicians who have taken over the job of running our profession."

UNITED STATES PUBLIC HEALTH SERVICE: ITS REPORT FOR THE YEAR 1936

How the "Marine Hospital Service" Has Grown.—From a Federal act, originally called the Marine Hospital Service law, signed on July 16, 1798, by John Adams, second president of the United States, and designed to give medical care to sick and injured seamen (for in those infant days of the Republic the mercantile vessels which made the Atlantic coast stations their home ports were a big factor in the prosperity of the Original Colonies), there has come into being during the succeeding 138 years a department known as the United States Public Health Service. It still carries on its original function, conducting twenty-five marine hospitals and 154 relief ports where merchant seamen may receive care as in Colonial days.

Two Federal narcotic farms, and Federal penal and correctional institutions, also receive its medical services, as do employees in the railway mail service. In addition, there has been developed, from the first beginnings, a Federal Public Health Service of great scope and efficiency; and in the report of Surgeon-General Thomas Parran, Jr., who, on April 6, 1936, succeeded his predecessor, Hugh S. Cumming, some of the major activities are outlined and may be worthy of further brief comment.

* * *

Decreasing Mortality Rates of Recent Years. New low death rates were recorded, in the preceding year, for typhoid fever, diphtheria and for infants under one year of age. The decrease in the death rate of tuberculosis and communicable diseases continues.

Chronic diseases, such as heart afflictions and cancer, baffle Federal and private physicians alike.

Three human cases of bubonic plague were reported from Western States, where rodent infestation is endemic. Smallpox was credited with 8,000 cases, many times more than should be in a supposedly enlightened age.

* * *

Research Activities.—The research activities of the United States Public Health Service included special studies of diseases such as "cancer, heart disease, malaria, Rocky Mountain spotted fever, poliomyelitis, leprosy, tularemia, plague, bacteriology, prophylaxis and therapeutics, pharmacology, zoölogy, and chemistry, and such additional subjects as industrial diseases, nutrition, child hygiene, dental investigations, milk sanitation, and stream pollution."

The Fight Against Syphilis and Gonorrhea. Mention is made of the greater attention which the Service is giving to venereal diseases, thanks largely to Surgeon-General Parran, who observes in his report:

When these diseases are brought out into the open, freed from the medieval concept of condign punishment for moral transgressions, and are dealt with as any other highly communicable diseases, the way is open to eradicate them just as we have stamped out other dangerous infections.

* * *

Medical Economic Surveys.—Another activity which should be of interest to readers, because of the Association funds, which, in conjunction with federal monies, have been expended on the California Medical Economic Survey, has to do with similar studies in other parts of the Union, concerning which it is stated:

The Public Health Service is engaged in the analysis of the enormous amount of data secured in the health inventory conducted in 1935 and 1936. This study included a survey of disabling illness, physical impairments, and facilities for medical care among 865,000 families in ninety cities and twenty-three rural counties—the most comprehensive survey of the kind ever undertaken in this country.

* * *

High Scientific Standard of United States Public Health Service Should Be Maintained. From the above it is evident that the record of achievement of this medical branch of the Federal Government is one in which not only the Service personnel, but all physicians and citizens may take real pride. These beneficent results have been brought about in good part because, in the last 138 years, the United States Public Health Service has been permitted to go forward in the fulfillment of its functions, under the leadership of medical executives who have made the highest standards of scientific medicine an integral part of the Department's aims and work. During this period of more than a century, the Service has been able to remain free from political and propagandist influence, and the best interests of the States of the Union demand that it must so remain. Licensed physicians everywhere should give whole-hearted and active support to that end.

MORE CONCERNING AUTOMOBILE ACCIDENTS AND "VEHICIDES"

Previous Comment on the Subject.—In the October, 1936 issue, on page 307, of CALIFORNIA AND WESTERN MEDICINE, the subject of automobile accidents was commented upon, and it was stated that in the year 1935, among 1,285,000 accidents occurring in automobile traffic in the United States, a total of 37,000 citizens had been fatally injured!

Some reasons for this appalling record were briefly indicated, the suggestion being offered that here was a problem to which county medical societies and their auxiliaries should give serious attention.

* * *

Latest Figures for One Hundred Thirty-one Cities.—The Bureau of Census of the United States Department of Commerce in its report of

City and State	Total Number of Deaths 1936	1935	Increase or Decrease Over Previous Year	Per Cent Increase or Decrease	Deaths Due to Accidents in City 1936	1935	Increase or Decrease Over Previous Year	Per Cent Increase or Decrease
Total (131 cities)	9,599	9,777	−178	− 1.8	7,032	7,354	−322	− 4.4
Berkeley, California	22	29	− 7	− 24.1	11	17	− 6	− 35.3
Glendale, California	20	25	− 5	− 20.0	12	19	− 7	− 36.8
Long Beach, California	61	51	+ 10	+ 19.6	46	47	− 1	− 2.1
Los Angeles, California	537	552	− 15	− 2.7	433	451	− 18	− 4.0
Oakland, California	102	81	+ 21	+ 25.9	89	73	+ 16	+ 21.9
Pasadena, California	31	17	+ 14	+ 82.4	20	12	+ 8	+ 66.7
Sacramento, California	61	50	+ 11	+ 22.0	25	30	− 5	− 16.7
San Diego, California	59	76	− 17	− 22.4	41	59	− 18	− 30.5
San Francisco, California	92	60	+ 32	+ 53.3	90	60	+ 30	+ 50.0
San Jose, California	22	19	+ 3	+ 15.8	9	9	0	0
New York, New York	932	1,076	−144	− 13.4	932	1,070	−138	− 12.9
Chicago, Illinois	715	806	− 91	− 11.3	278	245	+ 33	+ 13.5
Philadelphia, Pennsylvania	282	245	+ 37	+ 15.1	704	772	− 68	− 8.8

January 13, 1937, gives "An Annual Summary for 1936, with Number of Deaths and Per Cent Change for 131 Cities," and states:

. . . A total of 9,599 automobile fatalities occurred during 1936 in 131 major cities, according to reports of the Bureau of the Census, Department of Commerce. The 1936 toll was 178 fewer than the 9,777 reported for 1935. . . .

. . . Fatalities were reduced in New York and Chicago, the two largest cities in the country. . . .

. . . San Francisco reported 50.0 per cent more automobile fatalities in 1936 than in the previous year. In this city there were ninety deaths in 1936, and sixty in 1935. . . .

. . . The present report gives a summary of the figures for the years 1936 and 1935. . . .

. . . Tabulations show for each city the total deaths due to automobile accidents, and the deaths which result from automobile accidents within the city limits. The total deaths, therefore, include all those instances in which the automobile accident did not occur within the city proper, but in which the injured person was brought into the city, and died there. . . .

* * *

Ratings of Ten California Cities.—For the information of readers, the figures for the ten California cities listed in the report on 131 municipalities are given, the New York City, Chicago, and Philadelphia tabulations also being appended for contrast. (See table above.)

Is it necessary to add that mortality statistics such as the above provide food for serious thought?

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 119.

Health at New Orleans.—Telegraphic reports to the United States Department of Commerce from eighty-six cities with a total population of 37,000,000, for the week ended December 5, indicate that the highest mortality rate (21.3) appeared for New Orleans and that the rate for the group of cities as a whole was 12.2. The mortality rate for New Orleans for the corresponding period last year was 19.4 and for the group of cities, 12.2. The annual rate for eighty-six cities for the forty-nine weeks of 1936 was 12 as against a rate of 11.3 for the corresponding period of the previous year. Caution should be used in the interpretation of these weekly figures, as they fluctuate widely. The fact that some cities are hospital centers for large areas outside the city limits or that they have a large Negro population may tend to increase the death rate.

EDITORIAL COMMENT†

RECENT IMPROVEMENTS IN METHODS OF BIO-ASSAY*

Methods of performing biologic assay have recently been receiving considerable attention. The importance of the studies by Trevan[1] and Burn,[2] which make it possible to place this subject on a sound scientific and statistical basis, is being more generally appreciated.

The older method of injecting a series of animals with gradually increasing doses of the substance to be tested was usually not productive of a sharp end-point; frequently an animal receiving one of the larger doses would not react, while one receiving a smaller dose would give a positive test, thus leaving no definite level for the end-point. Anyone who has done much work in the biological laboratory knows that such a result is more common than to find a sharp demarcation in a series. Trevan and Burn have pointed out that animal variation must be considered in seeking biologic end-points, and that the only way to accomplish this is to inject a large number of animals with the same (submaximal) dose of the substance to be tested. The true end-point will then be represented by the percentage of reaction at that dose. If the percentage of reaction at several levels is determined, a toxicity curve can be constructed which will be characteristic of the reaction of that species to that drug. The percentage of possible error at the various levels can also be computed, using a formula which considers the number of animals used, the number of positive and negative reactions, and the size of the dose. The application of these concepts to older work based upon biologic assay has been productive of some surprising results.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

* From the Departments of Pharmacology and Medicine of the University of California Medical School.

1 Trevan, J. W.: The Error of Determination of Toxicity, Proc. Roy. Soc., 101:483-514 (July), 1927. Series B. London.

2 Burn, J. H.: Errors of Biological Assay, Physiol. Rev., 10:146-169, 1930.

A recent example is some work with the clinical modification of the Reid-Hunt acetonitrile test, which was said to indicate the presence of an increased amount of thyroid, or of thyreotropic hormone from the anterior pituitary, in the blood stream. The test was accomplished by noting the effect of injections of the blood serum to be tested upon the resistance of white mice to acetonitrile. Recent work[3] applying the methods of bio-assay, as advocated by Trevan and Burn, to this test has shown it to be without any clinical value.

Another important fact requiring consideration is the number of preparations that are now on the market with potency expressed in various animal units. It is obvious that unless the proper methods of bio-assay are used, the potency of the marketed preparation will vary as much as the resistance of the animals used, and it would be of interest, therefore, to have more details concerning methods of biological assay from pharmaceutical houses offering assayed substances for sale.

384 Post Street.

ROBERTO F. ESCAMILLA,
San Francisco.

THE PHYSICIAN: SCIENTIST OR ARTIST?

Ignoring for the moment many secondary meanings, science may be defined as the classification and coördination of factual knowledge; art as the utilization or application of knowledge to accomplish desired results. In the former case, knowledge is static; in the latter it is dynamic.

If the foregoing definitions are correct, it is evident that the present-day tendency to regard medicine as strictly a science is ill advised. For reasons of policy, perhaps such a conception is well enough. But any scheme of classification that fails to consider the claims of art in the premises does violence to a fair appraisal of the question.

Most basic knowledge concerning the structure and functions of the human body obviously is derived from science. Equally obviously the practical application of that knowledge falls within the province of art.

All living things are manifestations of art in the sense that their interpretation may be approached only through the artistic faculties. It is not possible to apply to them the cold, formal, unchanging rules and methods of science. Science confines itself to the material, and refuses to concede that the difference between animate and inanimate matter is in any important respect significant. Conclusions adduced from the study of matter, even its minutest subdivisions, refer exclusively to physical states existing at certain definite moments of time, not to the constantly changing conditions which constitute the very essence of living processes. Science seeks only data that are fixed and stable relative to the material elements which form life's medium of expression.

To be sure, matter is the essential basis of life as mortals know it. But there is a profound and fundamental distinction between living and nonliving matter, which in the very nature of things science does not undertake to investigate and explain. Science relies on measurement, mathematical exactness. These depend upon sense perception. It follows that science cannot deal with the intangible factors involved in determining the normality or abnormality of the actions and reactions of living organisms, ordinarily called symptoms. Symptoms point the way, the only way, to diagnosis. And diagnosis is the heart of medical practice.

The complex problems relating to the interpretation of life and its functional activities lie wholly within the sphere of the artistic. This higher plane is the *fons et origo* of those familiar, but scientifically undemonstrable mental processes, analysis, abstract reasoning, logical deduction; and here alone the power to differentiate the abnormal from the normal, to select the one true from many possible conclusions, may operate. Imagination, intuition, inference, judgment—these are faculties belonging to the realm of art as truly as those employed in the appreciation of beauty or the enjoyment of great music.

A master painting is composed of material substance—canvas, pigments, oil. The revelations it makes to the cultured beholder are something other and more. The subtle qualities of perspective, harmony, charm, are in no sense identical with the physical components, however intimately dependent on them.

Until the mystery of life and the riddle of its meaning are solved, the vital phenomena of health and disease cannot be relegated to the domain of science where the yardstick reigns and demonstration by the physical senses is the court of last appeal. Even biology, the so-called "science of life," tacitly recognizes the dilemma and evades it by boldly assuming the fact of life, without claiming to comprehend, much less to explain it.

Medicine is both an art and a science. Any comparison as to relative importance would be invidious. Whether consciously or unconsciously, the physician in the pursuit of his daily duties must needs be an exponent of art no less than of science. Realization of this truth should be an inspiration as well as a constant incentive.

2007 Wilshire Boulevard.

A. B. COOKE,
Los Angeles.

[3] Escamilla, R. F.: Failure of the Reid-Hunt Acetonitrile Reaction as a Clinical Test for Hyperthyroidism, Endocrinology. In press.

The Automatic Control of Radium.—At the Westminster Hospital, where special attention has been given to radium therapy for some time, an important advance in technique has been made. The new installation incorporates a system of distant control for the better protection of operators and has allowed larger "bombs" to be used. Additional radium has been acquired to give effect to the conclusion earlier reached by the surgeons in charge of the radiotherapy department that deeper penetration can be obtained by removing the radium to a greater distance from the point of application. Four grams of radium, valued at about $200,000, is used and is carried alternately by two bombs. By a system of automatic electrical control the radium in its container can be lifted from a leaden safe into one of the bombs and swung into position over the patient. The electrical switchboard is situated fourteen feet from the patient's couch. The two bombs and the radium container are made of a heavy ray-proof metallic compound recently invented. The installation, which has involved months of experimental construction and special tools, has cost about $4,000 apart from the radium.

ORIGINAL ARTICLES

PULMONARY EMBOLISM*

By E. RICHMOND WARE, M.D.
AND
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DISCUSSION *by Donald J. Frick, M.D., Los Angeles; Roy E. Thomas, M.D., Los Angeles; Philip H. Pierson, M.D., San Francisco.*

PULMONARY embolism is a frequent vascular accident which is too seldom detected before the patient reaches the autopsy table. A review of 236 chronologic necropsied cases occurring in the Los Angeles County General Hospital during the years 1931 to 1935, inclusive, has furnished us with the data upon which this discussion is based. Excluding the cases autopsied by the coroner, pulmonary emboli were found in 2.6 per cent of all necropsies. These autopsies were done by many individuals employing no special or uniform technique in searching for pulmonary emboli. There were many more cases of pulmonary infarcts and abscesses, and many of these were undoubtedly embolic; but no cases were included unless the embolus was described by the pathologists. Therefore, there were certainly numerous emboli which were not included in this incidence of 2.6 per cent. Many nonfatal cases were reviewed, but due to possible errors in diagnosis these were not analyzed statistically.

Although this condition is generally believed to be primarily a postoperative surgical complication, our series has amply demonstrated that a relatively small proportion of pulmonary emboli occur after surgical procedures, and that even in these cases there are usually accessory etiologic factors which are of primary importance. Autopsy analyses combined with clinical studies indicate that these accidents are frequently multiple, often unrecognized and are not necessarily fatal. In instances where death is not immediate, a clinical picture is usually presented which has certain fairly definite diagnostic characteristics.

CLINICAL MATERIAL FOR THIS STUDY

Our statistical information will be briefly reviewed in order to illustrate certain important conclusions. In this series of 236 cases there was an equal division between the sexes, there being 119 males and 117 females. Eighty-one per cent occurred after the age of forty. There were but four patients under twenty, and this is striking, considering the large number of children treated in this institution, where 17½ per cent of all admissions, excluding new-borns, were under sixteen years of age. The four cases under twenty were all associated with an active infectious process: two with cerebral sinus thrombosis following otitis media, one with bacterial endocarditis, and one with rheumatic myocarditis complicated by jugular thrombosis. Where the embolus was unilateral the right pulmonary artery was involved more than twice as often as the left (sixty-six to twenty-nine), but in an equal number of cases (ninety-two) emboli were found on both sides. The main trunk was occluded in thirty-one instances, and in eighteen the location was not clearly defined. The arteries to the lower lobes were affected more frequently than those to the upper. It is of interest to note that multiple emboli were found in over one-half of the cases of the entire series (137). Forty-nine per cent of the total series developed pulmonary infarction, and this was most frequent in the right lower lobe. Icterus of the sclerae was present in twenty-two cases, and all but one of these had one or more pulmonary infarcts. In 84 per cent the pulmonary emboli were considered by the pathologist to be the primary or contributing cause of death.

INCIDENCE IN THE CHILDREN'S HOSPITAL OF LOS ANGELES

We obtained further information on the rarity of this condition in patients under the age of thirteen from the Children's Hospital of Los Angeles. Between January, 1922, and June, 1936, there were 44,317 admissions. Between January, 1928, and June, 1936, there were 1,200 autopsies. In this total series there were only five cases in which pulmonary embolism was a consideration. There were two cases of sudden death a few hours after operation in which embolism was considered, but the recorded findings (without autopsy) did not support this diagnosis. There was one case of sudden death following a transfusion, which was given through a needle previously used for twenty hours for a continuous infusion of saline, in which thrombi were described only on microscopic sections of the lung. In a similar case, which also had a severe pneumonia, a "thrombus," one-fourth centimeter in diameter, was found in a pulmonary artery. In one case of infected circumcision, and staphylococcus septicemia, multiple abscesses in the lung were considered to be embolic in origin. There were, then, in this large group from the Children's Hospital, no cases that were clinically acceptable or in which a gross pulmonary embolus was identified at autopsy.

DIVISION OF PULMONARY EMBOLI INTO THREE GROUPS

For purposes of comparison we have divided the cases of pulmonary emboli into three groups: those treated medically, 65 per cent; those following operation, 27 per cent; and those following trauma, 8 per cent. The most striking feature in the entire series—and this was, of course, most pronounced in the medical group—was the large number of cardiac cases. Thirty-five per cent had definite signs of decompensation, and another 17 per cent showed marked anatomical changes in the heart without decompensation. This represents 52 per cent of the entire series which suffered from severe cardiac disease. The incidence of pulmonary infarction was exceptionally high in

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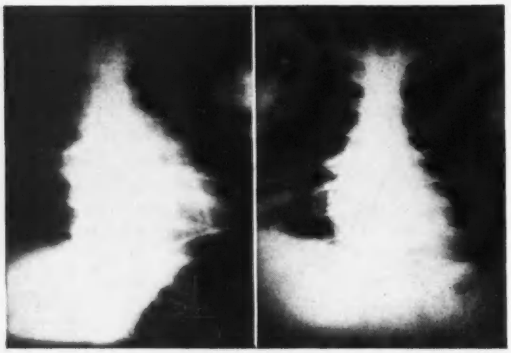
We wish to thank Dr. Newton G. Evans and the Pathological Department of the Los Angeles General Hospital for the use of the autopsy records.



(A) (B)

Fig. 1.—A. Three-foot anteroposterior view of chest three days after characteristic attack of pulmonary embolism. B. Three-foot anteroposterior view of chest twenty days after Film A. Note general cardiac enlargement and prominent pulmonary conus shadow in the first film. In the second film these have disappeared.

those suffering from congestive failure. These facts indicate that patients with cardiac disease, and in particular those with decompensation, are constantly candidates for pulmonary emboli. These are often small, frequently are not diagnosed, and are the reason for the multiple pulmonary infarctions so often seen at autopsy. In the surgical cases the embolus occurred most frequently between the fourth and the thirteenth day, with an average of eleven days. However, three were recorded as early as the first, and one as late as the thirty-first postoperative day. The time of appearance of the embolus, following trauma, averaged seventeen days.

SUPPURATION AS A CAUSATIVE FACTOR

In the total group of 236 the element of suppurations appeared to be an important causative factor. Frank collections of pus were discovered in fifty-two instances—twenty-nine in the surgical group of sixty-four, and twenty-three in the medical group of 153. Of these fifty-two, the location of the venous thrombosis was found in twenty-four instances, and in twelve of these the veins involved were directly in contact with the abscess. This suggests that the suppurative process was at times responsible for the formation of the localized venous thrombus. The incidence of abdominal suppuration was high—thirty-eight out of the fifty-two. Thirteen of these cases also had marked cardiac pathology or decompensation, indicating how combined factors may operate in a single case. It is interesting that the twenty-three cases of abscess in the medical group were candidates for surgery, but developed the pulmonary embolus before surgical intervention.

ACUTE PERIPHERAL THROMBOPHLEBITIS

We attempted to determine how often an acute peripheral thrombophlebitis might be considered the primary source of the embolus. There were only eleven such cases in the entire group. These figures are well in line with those reported by others, which indicate that fatal pulmonary embolism is not a common complication of an acute thrombophlebitis. The inflammatory process within the vein sets up a reaction producing relatively firm adherence between the clot and the vessel wall, so that it is not readily released. The rarity of death from pulmonary embolism in the hundreds of thousands of injections for varicose veins is an additional proof of this contention. Here a deliberate effort is made to induce damage to the vessel wall and incite the formation of a clot, and the procedure is rarely followed by pulmonary embolism. In our group there had been no varicose veins injected, and there were only thirteen cases in which varicose veins were described.

MECHANICAL VENOUS COMPRESSION

In attempting to find a cause for the initial thrombus acting as a source for pulmonary emboli, we considered the question of mechanical venous compression, chiefly from tumor. We found definite evidence of such pressure in twelve patients, and felt that such a factor might have played a part in eleven more. There were several instances in which large pelvic tumors, generally of the uterus, could have produced pressure upon the veins within the pelvis. In the traumatic series of nineteen cases, casts had been applied to the lower extremities in six. In one case the cast was so tight as to cause considerable swelling of the foot and had to be removed. Death occurred suddenly two days later, and at postmortem examination thrombosis of the veins of the leg was described with multiple pulmonary emboli.

OTHER FACTORS

Obesity was mentioned thirty-five times, emaciation thirty, a decubitus ulcer was present in sixteen, and a malignant tumor was evident in thirty-four. Some form of prolonged debilitating illness preceded death in thirty-seven instances, twenty-eight of these being in the medical group. These were mostly far-advanced malignancy and also cerebral pathology, cord changes, psychoses, extrapulmonary tuberculosis, severe pernicious anemia, and pellagra. They were all bedridden for long periods, more or less emaciated and dehydrated. It was believed that no definite conclusion could be drawn from these observations, although dehydration and impairment of circulation may have influenced thrombosis.

POSTOPERATIVE SERIES

It is of interest to note that of the sixty-four postoperative deaths there were only thirteen instances in which no etiologic factor other than the surgery could be discovered. The other cases gave evidence of suppuration, cardiac disease, acute phlebitis, sepsis, indication of prolonged venous compression or debilitating illness—factors which, in the nonoperative series, we found to be capable of producing thrombosis without surgical intervention. This observation emphasizes the importance of excluding various other sources of pulmonary emboli before attributing a postoperative attack solely to the surgical procedure. In only four cases, two of hysterectomy, one of hemorrhoidectomy, and one of herniotomy, were thrombosed veins found in the region of the operation.

SITES OF THE EMBOLI

The thrombus responsible for the embolus was found in 122 cases. Of this group the largest number, fifty-four, was found in the pelvic veins including the iliacs, the veins of the broad ligaments, and the periprostatic and perivesicular plexuses. Thirty-one cases of thrombosis of the various veins of the lower extremities were described. In twenty-three instances, emboli apparently arose from clots within the right auricle, and in three cases the probable source was a mural thrombus in the right ventricle. Many of the emboli of undetermined origin must have come from the legs, as these veins were rarely explored except where there was clinical evidence of thrombosis in the legs.

COMMENT

A review of this series of figures points to certain conclusions which we believe are of importance. The largest number of pulmonary emboli occur in medical rather than postoperative patients. In the vast majority of cases there is some predisposing factor which explains the appearance of venous thrombosis. Heart disease, with accompanying decompensation and congestive failure, is probably the most frequent of such factors. The most apparent mechanism of production of the venous thrombi in cardiac failure is the slowing of the venous current. This is well illustrated by the frequency of thrombi within the auricles in auricular fibrillation. A similar mechanism probably explains the thrombi produced by pressure upon the veins by tumors, casts, or bandages. Impaired venous circulation may also be produced by prolonged muscular inactivity and diminished respiration. Such conditions exist in any bedridden patient, and particularly in postoperative patients who have undergone any form of abdominal surgery. Venous slowing from lack of muscular action gives a reasonable explanation for the pronounced frequency of thrombosis in the veins of the lower extremity, where muscular activity is at a minimum, as compared with the rarity of thrombi in the arms which are frequently in motion and often elevated, even in a bedridden patient.

TRAUMATIC CASES

It seems significant that of the nineteen traumatic cases, fifteen were fractures of the lower extremities and three were fractures of the ribs. In the only other case there was a fractured skull, sinus thrombosis, and an infected embolus. There were five cases in the group with severe heart damage, and casts had been applied in six other instances. There were no cases of trauma to tissues without the fracture of a bone, which required a prolonged period of immobilization. The average length of time between the accident and the occurrence of the embolus was seventeen days. The fractured ribs undoubtedly resulted in depressed respiration. It would seem that venous stasis from cardiac disease, casts, depressed respiration, and muscular inactivity may also have been an important predisposing cause of venous thrombosis in the traumatic group.

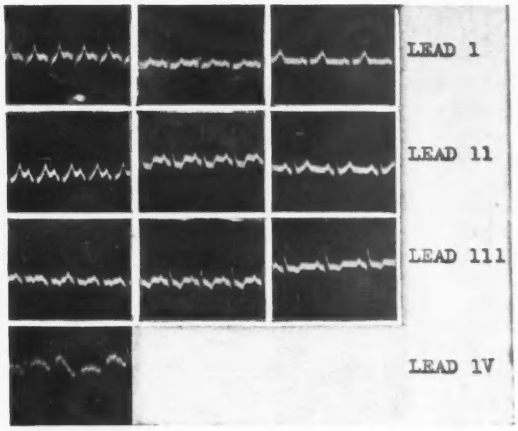


Fig. 2.—Serial electrocardiogram. The first taken four hours after a severe attack of pulmonary embolism and twenty-four hours after a mild attack. Lead IV taken with left arm lead over apex.

THROMBI

Unfortunately, the most dangerous type of venous thrombosis, from the standpoint of the likelihood of emboli, appears in those cases where the thrombosis is of the bland and noninfected type. Such patients give little or no indication of their condition, and the sudden appearance of a pulmonary embolus may be the first suggestion of an unrecognized thrombus. Where an actual inflammation of the intima of the veins develops, as in an acute thrombophlebitis, with accompanying swelling, redness and tenderness, there is not so great a hazard of the liberation of an embolus.

SIGNS AND SYMPTOMS OF EMBOLI

Although pulmonary emboli of large size are often fatal, there are probably many more instances where such is not the case. There is a great variation in the clinical picture produced, dependent upon the size of the artery occluded. When the embolus obstructs the main pulmonary artery, or one of its major branches, death may be instantaneous. If not, the patient suddenly presents the picture of extreme anxiety. He sits up in bed with rapid, shallow respiration and fights for breath. There is usually no severe pain, but a marked sense of substernal oppression and often a fear of impending death. The skin is pale, cold and wet with sweat. Cyanosis is usually present, which may be moderate or extreme. The pulse is rapid, small, and frequently disappears completely. Arterial blood pressure falls and venous pressure rises, so that distention of the cervical veins is usual and should be sought in every case. On auscultation the heart sounds are faint and rapid. An intensification of the pulmonary second sound is quite consistently present. This is a valuable sign and is often accompanied by a visible pulsation in the left second intercostal space close to the sternum. A to-and-fro friction rub may be heard in this area. If the patient survives the immediate attack, signs of right heart failure may gradually develop with increased venous distention, enlarged liver, and anasarca.

TABLE 1.—*Review of 236 Autopsied Cases of Pulmonary Emboli* *

Total hospital autopsies (1931-1935) 7632
Number with pulmonary emboli 207
Incidence of pulmonary emboli 2.6%
(Additional group from coroner's autopsies) 29

Embolism listed as cause of death	84%
Pulmonary infarcts	49%
Congestive heart failure	35%
Severe cardiac damage	17%
Total suffering from severe heart disease	52%

Death occurring after 40	81%
Death occurring under 20	4 cases

Group Classification

		With Cardiac Decompensation	With Severe Cardiac Pathology
Medical	153	77	22
Postoperative	64	6	13
Post-traumatic	19	0	6

Multiple emboli	Noted in 137 cases
Icterus	Noted in 22 cases
Obesity	Noted in 35 cases
Emaciation	Noted in 30 cases
Decubitus ulcer	Noted in 16 cases
Malignancy	Noted in 34 cases
Debilitating illness	Noted in 37 cases
Pressure on large veins	Noted in 12 cases
Pressure a possible factor	Noted in 11 cases
Acute peripheral phlebitis	Noted in 11 cases
Thrombosis described at operative site	Noted in 4 cases
Embolism following operation with no other ascertainable cause	Noted in 13 cases
Cases with surgical conditions but without operative interference	Noted in 21 cases

Location of Embolus

Right	66	Main artery	31
Left	29	Location not given	18
Right and left	92		

Collection of Pus—52 Cases

Medical	23
Surgical	29

38 of these in abdomen.

Primary Thrombus Described—122 Cases

Location—Pelvic veins	54
Lower extremity	34
Right heart	27
Cerebral sinus	3
Jugular	2
Axillary	2

* Summary of statistical data more fully described in text.

The result depends to some extent upon the previous state of the cardiac reserve. There may be temporary improvement, followed by another immediately fatal embolus. Even the most severe attack, if not immediately fatal, may after a day or two show signs of improvement and be followed by complete recovery.

Emboli of smaller size will produce a much less dramatic and characteristic picture without the evidence of shock described above. There may be no more than a sudden increase in the respiratory rate, with slight substernal discomfort. The pulse suddenly quickens and there may be a slight cough. Later there may be depressed breath sounds, moderate dullness and a few râles in the lung. Hemoptysis is frequently present, but this may not appear for a day or two. There is often a sharp sticking pain in the chest on respiration; fever and a moderate leukocytosis usually appear. With these small emboli the signs of so-called cor pulmonale, described above, may be entirely absent. Such a picture occurring in a postoperative patient may raise the question of pneumonia or atelectasis. The suddenness of the onset and the lack of more definite physical signs would rather suggest an embolic accident. However, the presence of a large area of infarction may give all the signs of consolidation. Hemoptysis is not a constant feature, and when present is apt to appear some hours or days after the initial attack. It is more usual with cases of impaired circulation and congestive failure. The pain in the chest increased by deep breathing is produced by pleural involvement when the infarcted area reaches the surface of the lung. It is not always present and is usually absent at the onset. Embolic obstruction of smaller vessels producing few or no symptoms is undoubtedly common. There may be no more than slight and transient dyspnea, moderate pulse acceleration and slight substernal discomfort.

IMPORTANCE OF RECOGNITION OF EMBOLI

Although these minor embolic accidents may produce so few symptoms and signs, they should not be disregarded. Our review of these autopsies has demonstrated how often these emboli are multiple with evidence of previous clots in the pulmonary arteries which appeared at variable times before the fatal embolus. In cardiac patients with heart failure, in medical or surgical cases with suppuration, sepsis or prolonged confinement to bed, in postoperative patients (particularly those involving pelvis or abdominal surgery), one should keep in mind the likelihood of such an accident in connection with any development in the lung or heart. One should search with care for any evidence of venous thrombosis. Such a focus is usually not evident, but if found will substantiate the suspicion of pulmonary embolism. These patients should be watched with unusual care and one cannot overemphasize the necessity of absolute rest and avoidance of any slight exertion, such as straining at stool or urination, getting out of bed too soon, or moving too vigorously in bed. Fatal accidents often occur during such activity. When a pulmonary embolus is suspected, the period of convalescence and bed rest should be prolonged for four to five weeks.

ELECTROCARDIOGRAMS

The three electrocardiograms occurring in this autopsied series, together with a study of seven tracings in patients who have recovered from characteristic attacks of pulmonary embolism, have shown certain valuable diagnostic changes. S_1 is constantly present and usually of considerable amplitude. The S-T interval in both Leads I and II, arises well below the base-line and gradually ascends to the T wave. This may suggest on occasions a diphasic T, but we believe the change is due primarily to the S-T segment rather than to the T

wave itself. Lead IV (Wolferth derivation) shows constant abnormalities in the T wave, which is usually upright rather than downward, but may be diphasic or of abnormally low voltage. The prominent Q_3 mentioned by White was seen six times out of ten. The characteristics described above have been found to be present with a fair degree of regularity. They are of definite value in differentiating the acute cor pulmonale from an attack of coronary occlusion. However, we feel it wise to emphasize that such changes are not uniformly present—particularly in minor attacks—and that the form of the electrocardiogram in every instance must be influenced by preëxisting cardiac pathology.

These patients are usually too ill to be disturbed for roentgenograms. There were several pictures in this series which were of no diagnostic help. However, in one instance a pronounced exaggeration of the pulmonary artery shadow appeared in the cardiac silhouette. Two weeks later this had entirely disappeared. It is logical to expect such a change in the pulmonary artery if a major portion of the pulmonary arterial circuit has been obstructed. At times a triangular-shaped infarct may be seen in the x-ray film.

PULMONARY EMBOLISM AND CORONARY OCCLUSION

It may be well to emphasize the similarity and also distinguishing features between pulmonary embolism and coronary occlusion. In both instances the patient presents the picture of shock and collapse, with extreme dyspnea, orthopnea, and sweating. Coronary occlusion is apt to cause more severe pain with radiation to the arm, and pulmonary embolism is apt to cause more cyanosis. Accentuation of the pulmonary second sound and occasionally a pulsation or friction rub in this area are most important points, indicating a pulmonary embolus rather than a coronary accident. Pulsation of the cervical veins, pain on respiration, jaundice, and hemoptysis, are more frequent following pulmonary embolism. A previous history of angina pectoris would suggest coronary occlusion, while congestive failure, prolonged bed rest, or signs of venous thrombosis would favor embolism. Electrocardiograph changes may occur in both conditions, but usually present distinguishing features.

Other conditions which may prove confusing are spontaneous pneumothorax, dissecting aneurysm, pneumonia, pulmonary atelectasis and acute upper abdominal accidents, as perforating peptic ulcer. These should be relatively easy to differentiate, with an adequate history and careful physical examination.

PREVENTIVE THERAPY

Prophylaxis is more important than treatment. Keeping in mind the various predisposing factors to venous thrombosis, one should make every attempt to prevent such conditions. Patients should not undergo elective operations with any degree of cardiac decompensation. Those who must face emergency surgery while showing circulatory failure should have careful postoperative care under competent medical supervision. Surgeons should be careful to avoid undue trauma to veins, particularly in pelvic and hernia operations. Casts and bandages should not be applied tightly enough to cause venous obstruction. With thrombophlebitis localized in the saphenous vein, ligation of the vessel above the thrombus deserves consideration. As venous stasis is probably the greatest single factor inducing venous thrombosis, every effort should be made to prevent its occurrence. Frequent change of position, elevation of the foot of the bed, muscular activity of the legs and massage have all been recommended. Systematic exercises of the extremities for all postoperative patients were advocated by Richardson in 1904, and various contrivances have been used for this purpose. The routine postoperative use of carbon dioxid to stimulate respiration should also be of value in preventing venous stagnation. Unfortunately, however, it is impossible to prevent the occurrence of cardiac disease and decompensation, as well as the development of suppurative conditions—particularly abdominal. These two important causes of venous thrombosis will always be responsible for a certain number of pulmonary emboli. Some of the procedures which have just been mentioned, although employed to prevent venous stasis and thrombosis, have the disadvantage of aiding liberation of clots from thrombi which have already formed and which may have been undetected. With any suspicion of such an event, all attempts to promote circulatory activity should be stopped at once. Enforcement of complete rest after the appearance of a small embolus cannot be too strict. Such a regimen may prevent the liberation of a larger and fatal embolus.

TREATMENT

Treatment for the immediate attack does not differ greatly from that employed in coronary occlusion. Complete and prolonged rest in bed must be maintained. The patient will be more comfortable with elevation of the head and shoulders. There is no indication for digitalis. Morphin should be used for restlessness and discomfort. Oxygen is of great value in the presence of cyanosis or air hunger.

A few lives have undoubtedly been saved by the use of the Trendelenburg operation, which consists in removing the embolus from the pulmonary artery. It requires the presence of a trained and equipped operating team at the patient's side the moment the operation happens to be indicated. This may be practical in some large hospitals. It is complicated by diagnostic, prognostic and technical difficulties which will probably prevent its widespread use.

IN CONCLUSION

In conclusion, we would like to emphasize four points. Pulmonary emboli are frequently seen in both medical and surgical patients. They may be confused with coronary occlusion, pneumonia, atelectasis, and other conditions. The emboli are characteristically multiple and recurrent. It is important to remember them in the differential diagnosis of many acute pulmonary and cardiac con-

ditions, and to diagnose the small emboli in order to take the proper steps to prevent a recurrent and fatal embolus.

1136 West Sixth Street.

DISCUSSION

DONALD J. FRICK, M. D. (1136 West Sixth Street, Los Angeles).—This is an excellent and timely review of present knowledge concerning pulmonary embolism. The statistics from both the General Hospital and the Children's Hospital are of extreme value in pointing out an important factor in the production of emboli, *i. e.*, slowing of the blood current. Children, during their illnesses, move about. Their circulation is usually at an optimum. Their heart muscles are competent. As age advances, we have the degenerative changes of the heart muscle, which slow the blood flow both in the periods of shock and mobilization during medical and surgical illnesses.

The realization of the danger of even moderate cardiac damage, plus temporary immobilization of portions of the body, especially the pelvis and the lower limbs, will make us more careful in the handling of all our patients—seeing that the heart is improved to its optimum and passive or active motion of the extremities is made a routine. Thrombi form as a result of retarded blood flow. From thrombi come emboli.

Early diagnosis is a necessity, both from the standpoint of proper treatment and the prevention of later emboli. This point is well brought out, and should at all times be kept in mind in the cure of this hazardous accident.

Every physician, whatever his trend, should have the fullness of knowledge regarding pulmonary embolism, its diagnosis, prevention, and treatment. This emergency will come to all of us, and only by full knowledge can we save lives.

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ROY E. THOMAS, M. D. (1136 West Sixth Street, Los Angeles).—In this paper by Doctors Ware and Bullock, the importance of pulmonary embolism to both surgeon and internist is indicated in the very first paragraph. Any condition which, in a five-year period, is responsible for nearly 250 deaths in a single hospital, deserves most serious consideration.

Most of us, I fear, have been accustomed to consider pulmonary embolism a sequel to some surgical procedure or trauma. The authors show that surgery is responsible for less than one-half the cases in their series, and in the majority of these there was the additional factor of suppuration.

I can add nothing to the preventive measures advocated in the paper, but I would emphasize the importance of avoiding elective surgery in patients past middle life who are known to have impaired circulation. Also, in those cases of thrombosis of the saphenous vein, resulting from trauma or infection, we can urge the ligation of the vein in the groin. These cases are not common, but fatal embolism does occasionally occur when the free end of the snake-like thrombus, which has been waving in the blood stream, breaks off.

Once embolism occurs, the outcome usually depends on the size and location of the blocked vessel and the previous condition of the patient. In addition to the therapeutic measures advocated by the authors, perhaps the immediate intravenous use of papaverin deserves mention. This treatment was advocated by Pal in 1914. If it be true that the point of lodgement of an embolus depends on spasm of the arterial wall rather than on the diameter of the vessel relative to the size of the embolus, then the use of a quickly acting antispasmodic drug such as papaverin is certainly rational. Collins has recently reported a series of ten cases so treated, with only one fatality. This would be encouraging, indeed, if one could be sure that the diagnosis of pulmonary embolism was correct in every case.

In this connection the following case is of interest. A patient was operated upon at the Los Angeles General Hospital for perforated duodenal ulcer. Several days later, while apparently convalescing, he suddenly went into shock, with all the signs of pulmonary embolism. He was given papaverin, grain one, intravenously, with prompt and striking improvement. A few days later an apparently identical attack occurred, which failed to respond to the same treatment. Autopsy showed no evidence of pulmonary embolism or other pathology to explain the sudden death.

Recently, a patient on one of the medical wards was allowed out of bed for the first time following lobar pneumonia. He walked a few steps and collapsed, with all the classical symptoms of pulmonary embolism. At the autopsy no embolism was found.

I cannot close this discussion without a word of condemnation for the Trendelenburg operation. I quote Evarts Graham: "When one considers the chance of error in wrongly interpreting the symptoms, and, therefore, in making an erroneous diagnosis of pulmonary embolism, the possible enthusiasm for the operation necessarily wanes. Still more must one's enthusiasm diminish when it is considered that not only is it necessary to establish a diagnosis of pulmonary embolism, but also to determine that in the particular case the embolism will prove fatal unless the operation is performed. Every surgeon of large experience has occasionally seen patients recover spontaneously in cases of embolism which seemed at the outset as if they would be fatal. After all, the operation is a very serious procedure. Considering these facts, one cannot help wondering whether, if it gains popularity, more patients will not die from the operation than would die from pulmonary embolism alone."

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PHILIP H. PIERSON, M. D. (490 Post Street, San Francisco).—Doctors Ware and Bullock have made a very thorough survey of the question of pulmonary embolus and have supplemented this study with a careful investigation of considerable autopsy material.

There are two points which I would like to emphasize: first, sterile emboli often go into normal lungs without any complications save for a transient spike of fever and local congestion, which quickly clear. On the other hand, when a sterile embolus is lodged in a congested or infected portion of the pulmonary field, trouble generally develops. I think a great many small, sterile emboli lodge in the lung, and we have no knowledge of their occurrence.

The second point that I would like to add is that, after a lung has been compressed for some time by fluid, small thrombi often form in the pulmonary vessels. If a large amount of this fluid is evacuated at one time, in these long-standing cases, emboli are at times set free and either cerebral or visceral damage takes place. It is safer then, in long-standing fluids, to take off not more than 500 to 700 cubic centimeters at a time.

PSYCHOSIS IN THE MENTALLY DEFECTIVE*

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Eldridge

DISCUSSION *by Ruggles A. Cushman, M. D., Talmage; Edward W. Twitchell, M. D., San Francisco.*

A PSYCHOSIS is a much more frequent complication of mental deficiency than is generally believed. Frequently a patient, who comes to the attention of the court or the doctor because of peculiar actions or inability to adjust in the community, is given a mental test, and when found to be subnormal is dismissed as feeble-minded and all his symptoms ascribed to this condition, while in reality he may also be suffering from a psychosis, and it is the psychosis that is causing his inability to adjust. He may have been getting along well enough until his mental upset occurred. This patient needs the care afforded by a mental hospital. If he is returned home his difficulties

* From the office of the Medical Director, Sonoma State Home.

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continue, while if he be sent to an institution for mental defectives or to a boarding school he will not fit in with other defectives and will continue to be a problem until he finally is sent to a mental hospital or recovers from his psychosis.

LIMITATIONS OF INSTITUTIONS FOR THE MENTALLY DEFECTIVE

Institutions for the mentally defective are not equipped to care for psychotic aments. The majority of the patients at such institutions require custodial care and training from which the disturbed patients cannot benefit because of their mental condition; while their behavior taxes the facilities of the institution in caring for them and disturbs the routine of the ward on which they are placed. These patients frequently keep those otherwise well behaved in an uproar, and are unsatisfactorily treated because the attendants are not usually trained in the care of psychotic patients.

DETERMINATION OF THE MENTAL STATUS IMPORTANT

Therefore, in order that our state and private institutions may function at their best, care should be taken to ascertain the exact mental status of a person before it is decided where he should be sent. Merely because he has a low intelligence quotient does not mean that his chief complaint is mental deficiency.

True, it is difficult to be sure just what ails a patient seen in the detention home, and who can be observed only for a short time before his disposition is decided upon. However, a trained psychiatrist can be fairly sure of his diagnosis, and will avoid many more errors than can a person whose practice encompasses chiefly other fields of medicine. Therefore, it would be well for the judge or person who has the disposition of the case in hand to have a competent man see the patient and give him a chance to observe him and be guided by his recommendation.

With reference to the mental rating arrived at by a psychometric reading, it must be remembered that a person with normal mentality will, when acutely disturbed, or when the condition is due to deteriorating mental disease, test in the feeble-minded group. While his intelligence quotient fits in this group, still he should not be treated with that group because his intelligence quotient is the result of, and not the cause of, his trouble.

TWO STATE INSTITUTIONS FOR THE MENTALLY DEFICIENT IN CALIFORNIA

There are two state institutions for the mentally deficient in California—one situated in northern California, at Eldridge, which was established in 1887 in another part of the state, and which on April 1, 1936, had an actual population of 2,630, representing an overcrowding of 21 per cent. The other state institution is situated in the southern part of the state, at Pacific Colony, and on April 1, 1936, had an actual population of 734, representing an overcrowding of 18 per cent. The total population of the two institutions on this date was 3,364. Also, there is a long list of over 2,000 patients awaiting commitment to these two institutions, and there are numerous private homes for the care of such children, while many are cared for in their own or foster homes.

THREE MAJOR GROUPS OF PATIENTS

The great majority of these patients may be divided into three large groups:

The obviously defective, who for one reason or another cannot be cared for in their community;

The epileptics;

And the defective delinquents who are sent here rather than to prison or correctional school.

Forming a fourth much smaller group, but still large and troublesome enough so that they are demanding ever-increasing attention, are the psychotic aments with a problem all their own. Because they are psychotic they do not belong among the stable and adjusted feeble-minded, nor, because of their basic deficiency and frequently their age, do they belong among the adult group cared for in state hospitals. A special institution for their care is a pressing necessity, which we hope will be met in the near future.

Aments fall heir to the same psychoses found among the general population. Due to their short-life expectancy, emphasis is placed on those psychoses prone to occur in adolescence and early adult life. Also these patients are subject to many transient periods of mental upset which cannot be readily classified, and which are accordingly labeled psychoses associated with mental deficiency. While all the recognized types of psychoses occur in aments, their symptoms and signs are frequently considerably altered because of the associated deficiency. However, the same etiologic factors and symptomatology are in evidence here as they are among mental patients who are not defective.

DIAGNOSIS OF TYPES OF MENTAL DISORDER

Diagnosis of the type of mental disorder is complicated by the degree of defect present. In the lower grades, only actions are available as guides to what is the condition of the mind, as the patient is very frequently unable to give the examiner information in any other way. Thus, it is largely a matter of clinical judgment as to what type of psychosis is present. The higher the intelligence quotient, of course, the more nearly the problem approaches that found in the normal population.

As to whether the patient has a definite major psychosis grafted upon his amentia, or whether it is merely a minor psychotic episode associated with the deficiency, depends upon the character of the behavior and the duration of the upset. Many of the feeble-minded have transient periods of psychic upheaval, varying from mere temper tantrums to definite psychotic episodes of short duration or to definite major psychoses.

Because of the peculiar actions of the idiot and imbecile, and the childish behavior of the morons, it is sometimes very difficult to say whether his behavior is normal for him or if he is suffering from a psychosis.

SURVEY OF THE PSYCHOSES AT SONOMA STATE HOME: JANUARY, 1930, TO JANUARY, 1936

A survey of the psychoses that have occurred at the Sonoma State Home from January, 1930, to January, 1936, shows that almost every type of psychosis tabulated by the American Psychiatric Association is there represented.

ENCEPHALITIS SEQUELAE

Of chief interest, because it is a most recent development, is the large number of cases which are the result of encephalitis with personality changes in the individual. These patients very frequently are normal until they have lethargic encephalitis, influenza, or some childhood disease. After recovery they become quite different people and are profound behavior problems. These patients undoubtedly have organic brain damage, but so far there has been very little material available for study. Their intelligence quotients remain high, but their emotions are profoundly altered. While these patients are not feeble-minded, because of their age group—usually under twenty—they are found more and more frequently in our institution because there is no place else to care for them.

Such cases are diagnosed chiefly on the behavior, which includes usually lying, stealing, sex delinquencies, extreme cruelty, resentment of all authority, total disregard of punishment, a complete candor in recounting their behavior with an emotional reaction of complete indifference and a total inability to explain why they act as they do. The history is sometimes barren of evidence of just when the encephalitis occurred. Also the neurologic evidence is usually slight and characterized by the spotty distribution of the lesions. The most familiar sequela of encephalitis, Parkinson's syndrome, is not usually found in this group. We believe that many cases placed in other classifications, especially that of psychopathic personality, really belong in this group and that these cases will assume an ever-increasing medical problem.

From January 1, 1930, to January 1, 1936, a period of six years, there have been 510 patients referred to our psychiatrist because of peculiar behavior noted in the institution. Of these cases, 287 have been found to be suffering from some form of psychosis.

PSYCHOSES BY GROUPS

1. The commonest psychoses were found to be those associated with epilepsy. As the institutions caring for the mentally deficient are the only institutions in the state caring for nonpsychotic epileptics, a large part (approximately 25 per cent) of our population is made up of these unfortunate sufferers. It is only to be expected that a group suffering from this profound nervous disorder would develop a considerable number of psychotics. The commonest mental picture is that of deterioration, a gradual development of mental dullness, slowness of association and thinking, impairment of memory, irritability, or apathy. Various accessory symptoms, paranoid delusions and hallucinations, may be added to this fundamental deterioration. These patients are the slow-moving, thick-speaking, irritable individuals, frequently seen. They do not present much of a problem unless their hallucinations and delusions lead them to attack their fellows, when they must be segregated.

The second type of epileptic psychoses, the epileptic clouded states, is characterized preceding or following convulsive attacks by dazed reactions with deep confusion, bewilderment and anxiety or excitement, with hallucinations, fears and violent outbreaks. These are the dangerous type as, during their confused periods, they do many impulsive acts that frequently cause injury to others, and of which the patient is wholly unconscious and for which he develops a complete amnesia.

Other epileptic types of psychoses show paranoid trends, hallucinatory states, depressions, elations, and manic attacks, with few other manifestations.

The prognosis in these cases is, of course, grave. They continue steadily downhill; and, while the psychotic episodes may be brief, they tend to recur and be prolonged.

The epileptic psychoses comprised 24 per cent or almost one-fourth of our psychotic patients.

2. The next commonest group are the dementia praecoses, which comprised 17 per cent of our psychoses. While it is difficult to differentiate between the brief upsets frequently met with in defectives and a true dementia praecox psychosis, true schizophrenia does occur in defectives, even in the lower types where it might be thought it would not occur. In fact, when first seen, it is often hard to be sure whether the patient is primarily defective or if he has always been a praecox and has been sent to us on the basis of a low intelligence quotient due to deterioration or preoccupation resulting from the psychosis.

The various types occurred in the following frequencies: simple, three cases; hebephrenic, forty-two cases; paranoid, two cases; catatonic, two; unclassified, two. The only difference between these cases and those met with in mental hospitals is that the patients are more inaccessible and do not show the strikingly bizarre features so frequently seen. They are more frequently characterized by and diagnosed on their typical behavior so rich in mannerisms with evidences of hallucinations. Aside from the paranoid types they do not present a serious problem, as they are much better workers than the purely defective and fit in very well.

3. The third largest group includes those called psychoses associated with mental deficiency. These are usually of an acute transitory nature and most commonly have episodes of excitement with depression, paranoid trends, and hallucinatory attacks. The attacks are brief, frequently being readily brought on by minor events in their environment, and are usually readily controlled. They may be likened to the temperamental outbursts of the spoiled child, but are more deep-seated. These comprise 16 per cent of our cases.

4. The fourth group are those best grouped under the heading of behavior disorders. Our institution receives a large number of defective delinquents, many of which are found to have a definite organic basis for their behavior. They compromise 10 per cent of our series. They are caused by encephalitis, either the lethargic type or that associated with childhood diseases. In some cases, even though there is no history, the behavior is so typical that they are grouped here. Causes of these thirty-two behavior problems were as follows: lethargic encephalitis, measles, influenza, pneumonia, and pertussis. Patients presenting the typical Parkinsonian picture occasionally have associated behavior disorders, and also become frankly psychotic. The commonest psychosis in this latter group is a psychoneurosis. However, depressions and melancholias are also found. Evidence of deterioration also occur in a few cases.

This group presents a serious problem in their care and training, as discussed elsewhere.

5. The fifth group is that of the manic depressive psychoses, which comprise 6 per cent of our series. This psychosis occurs in the higher groups and more frequently are represented by the manic phase than by the depressed phase.

This group is a complete misfit in our set-up, and must be segregated early to avoid damage to themselves and to others.

6. The sixth group is that of the psychoneuroses, comprising 5 per cent of our series. They represent the usual features and occur among the higher grades of our patients, as would be expected. They are serious problems and cannot be well cared for here.

Psychopathic personalities comprised 5 per cent of our cases, and of these only one-fourth had periods of upset which placed them as definitely psychotic, while the rest were made up of sexual perverts and emotional abnormalities.

SYPHILITIC AND ALCOHOLIC FACTORS

Syphilis played a part in only 4 per cent of our psychoses, and of these only one-third were juvenile paretics. Trauma accounted for 2 per cent of our cases, three cases showing post-traumatic personality disorders and two cases showing post-traumatic mental deterioration. Psychoses were associated with somatic disease (tuberculosis) in two cases, and there was one case of senile psychosis developing in an old defective who had spent the greater part of her life in our institution.

Among the psychoses we did not see were the alcoholic psychoses and the involutional melancholias. Alcoholism plays a minor rôle in the lives of our patients as we see them. Their drinking habits are due to the effect of their environment on their mentality, and alcoholism is only an incidental feature, seemingly taking no deep hold upon them.

The intelligence of this entire group of 287 cases by psychometric examinations showed a range from the idiot to the normal, as per our psychologist's report in his routine examinations on admission and some on reëxamination, as indicated.

GENERAL CLASSIFICATION

The following were the general classifications as we group them with the range and average intelligence quotient:

TABLE 1.—*General Classifications With Range and Average Intelligence Quotients*

	Range	Average
Psychopathic personalities	52-89	70
Lues	49-57	53
Psychoneurosis	73-90	80
Dementia praecox	26-70	60
Manics	20-72	45
Epileptics	41-94	70
Behavior disorders	41-90	70
Psychosis associated with mental deficiency	9-70	60

Thus indicating that mental disease may be expected in any degrees of mentality, and the lower the mentality the more difficult it is to make a differential diagnosis.

TREATMENT

In general, the treatment of psychotic aments is the same as that for other psychotic patients. However, there are one or two points that I would like to stress:

First: Since the mentally defective is, on the whole, a young group, many or most of the psychoses occur in patients under twenty. For this reason, as well as the fact that any degree of amentia may be present, they are rendered misfits in mental hospitals. There should be a special ward or wards attached to mental hospitals where these patients could be cared for, and in which they could be properly segregated. When this step is taken, we will have solved, in a considerable measure, the problem of the care and treatment of these patients.

Second: The rapidly growing group of personality changes following encephalitis do not, at present, fit anywhere in our scheme of treatment. They are not psychotic in the way that most mental hospital patients are, and they are usually not yet adults and thus do not fit in the institutions for adults. Also, they are not necessarily feeble, often having a high intelligence quotient, and thus they do not fit with the regular defective type. Again, they are such behavior problems that they are difficult to care for in an institution for mentally defective patients. The pressing need at the present time in California is a group of wards devoted to the care, according to their age group, of these postencephalitic patients.

The treatment of these patients is, as yet, only in the experimental stage. There are several clinics in this country working with these patients, and, while a few cases appear to recover and adjust satisfactorily, there is always a chance that these are only temporary cures, since many patients will do well for a few months, usually about six, and then return to their former behavior. This seems to be due to their inability for sustained interest in their environment and activities. The main plan of attack is one in which the child is removed from his home environment and placed

in a special school with twenty-four-hour supervision, with a strict regular routine and frequent changes of activity throughout the day. These children are naturally nonconformist and must be made to conform; but the method by which this can be done varies in each case. Punishment, as such, has little effect and should be discarded. In their homes these patients have been the subject of much undesirable personal attention because of their behavior, and have been singled out from the rest of the family. The bad effects that this treatment has had on the child must be overcome.

DISPOSITION OF THE PATIENTS AT SONOMA STATE HOME

The disposition of these patients up to this time might be of interest, as we are all concerned with the end-results of our treatments, whatever they may be.

TABLE 2.—*Disposition of the Patients at the Sonoma State Home*

	Per Cent
Transferred to other institutions	48
Retained (due to psychosis being mild, or where we feel their deficiency predominates over their psychosis)	49
Transferred and returned, as recovered from their psychosis or greatly improved and their deficiency only remains or at least predominates over their psychosis	1.3
Paroled	1.2
Died	0.5

This group have little or no sense of right and wrong, and do many impulsive things that result in harm to others. For this reason they should be segregated indefinitely until it can be ascertained that their antisocial tendencies have been curbed. Also, they need routine schooling. They are so regularly excluded from school that schooling must be provided in a special class and institution, for the facilities for the proper care of these patients and the psychotic defectives in California have yet to be provided.

Sonoma State Home.

DISCUSSION

RUGGLES A. CUSHMAN, M. D. (Mendocino State Hospital, Talmage).—We who are attempting to care for psychotic patients in the State hospitals are intensely interested in the problems of mentally defectives. While we do receive those mentally defective patients who are transferred from the homes for the feeble-minded, correction schools, etc., all psychotic patients we receive from the various counties, if they are not already mentally defective, soon lapse into that condition, after more or less of an interval, as a result of their mental storm. This defect in their mentality is almost invariably continuous. With some, of course, the advance is slow; so that after patients with this psychosis have sunk to a certain level they remain practically the same, with a more or less modified deterioration as the years go by.

Every one of these psychotic patients, after one such mental storm, never completely resumes his former mental powers. Owing to the inability of the relatives or friends of the patients to provide suitable homes, they become wards of the State. The reader may be interested in knowing that at the present time we have approximately 25,000 of these wards scattered throughout mental hospitals, homes for the feeble-minded, correction schools, etc. Quite a proportion of these patients have been under the care of the State for many years. For instance, here at Mendocino we have seven patients who have lived in this hospital between forty and fifty years. We have approximately twenty-five who have lived here from thirty to forty years. The probability is that our average time for residence in this hospital with all patients is approximately ten years.

This all involves a tremendous expenditure on the part of the State, as, with the practice of the utmost economy, we are compelled to spend around $225 each year per capita. In other words, the Legislature appropriates each session for the support of State hospitals for the biennium approximately $14,000,000.

It may also interest the reader to know that the sum total of admission for all State hospitals represents a turnover of approximately one thousand patients per month. The admission of new patients and the return of old patients from parole is approximately one thousand; the discharge and parole and deaths amount to around nine hundred, leaving a surplus of about one hundred scattered throughout the various State institutions. This means that there is a steady increase in California of around one thousand patients each year who have to be provided with a suitable home and proper maintenance. This condition has caused excessive overcrowding. None of the institutions have sufficient bed capacity to care for their inmate population, making it necessary in each hospital to have some patients sleep on the floor. Up to the present time it has not been possible to overtake this excess by the erection of new buildings, so that one may readily see the problem confronting all those interested in the proper care of these State charges.

We who are engaged in State work are trying to place these psychotic and defective patients in such a bodily and mental condition that they will be capable of adapting themselves to their surroundings and conforming in action to the usages of society in so far as may be possible.

You will realize from the above that I have viewed this subject, not so much about psychoses developing in the mental defective, as I have the defectives who run along with our psychotic condition. We are aiming to get these patients out at the earliest possible date, back to homes and relatives, with a different view of life as will cause them to have less conflict in their contact with other people, even though they may be fundamentally in the mentally defective class.

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EDWARD W. TWITCHELL, M. D. (909 Hyde Street, San Francisco).—It may no doubt surprise some to learn from Doctor Butler's paper that the mentally defective may become insane. But a moment's reflection should show that just as the stupid normal may become insane, so may those who are even more stupid, and that, as a matter of fact, no degree of stupidity protects one from insanity. But the lower one goes in the mental scale the more difficult may it become to determine when the feeble-minded become insane, while a feeble-minded patient who has been docile and manageable may, by reason of a psychosis, be converted into one who is far from manageable.

Under such conditions these patients naturally add to the difficulties already great enough in dealing with mental defectives, and some way must be devised for segregating them, otherwise an entire group of inmates under good control may get out of hand. The only thing to do is to place them in a separate ward or in an institution for the insane. Now, a home for feeble-minded, not being designed for the treatment of the insane, has added responsibilities placed upon it which should be avoided if possible.

In hospitals for the insane, one of the difficulties is that so many of these patients being children, they cannot well be put in wards with adults. It is not likely that the idea of a separate institution for psychotic aments would find favor in these days when there is so much difficulty in providing funds for institutions already existing.

The most practical way out would undoubtedly be to set aside wards for psychotic aments in the State hospitals for the insane. The epileptic who becomes psychotic is always a particularly difficult problem by reason of the tendency to do violent things, and some terrible things have been done by epileptics in a postconvulsional haze. The encephalitics with character change began to show themselves as a problem soon after the great epidemic. They were especially not easy on account of the fact that

they were at times so apparently normal and it was hard to convince their relatives and friends that there was anything wrong with them.

As Doctor Butler has shown, practically all types of mental disease can be found among the mentally defective, and treatment will follow the same line. It seems to be generally admitted that the juvenile paretics fail to respond to pyretotherapy as well as do the adults.

It is well that a situation already common knowledge to those in the institutional world should be brought to the notice of the profession in general.

TRANSURETHRAL RESECTION: DOES IT REQUIRE AS EXACTING A PREOPERATIVE PREPARATION AS PROSTATECTOMY?*

By H. C. Bumpus, Jr., M.D.
AND
Ben D. Massey, M.D.
Pasadena

Discussion *by H. A. R. Kreutzmann, M. D., San Francisco; A. M. Meads, M. D., Oakland; J. C. Negley, M. D., Los Angeles.*

THROUGHOUT the development of prostatic surgery, overemphasis of some particular type of operation or of some special phase in the preparation or the after-care of the patient, has characterized discussions of the subject. The pioneer surgeons earnestly debated the relative merits of partial and complete enucleation. The next generation heatedly argued the advantages and disadvantages of perineal or suprapubic prostatectomy. Today we are involved in acrimonious discussion of a still newer method of treatment. Such divergence of opinion is indicative of a healthy situation. For, when once all are in agreement upon any subject, progress is likely to cease.

THEORY

At the turn of the past century the techniques of prostatectomy were as numerous as the surgeons who attempted it, and results were extremely unsatisfactory, mortality running as high as 90 per cent. Improvement in this situation was brought about by recognition of the importance of preoperative treatment. The main factors contributing to this improvement were: (1) The practice of preliminary drainage; (2) the development and application of tests of renal function; and (3) a realization of the importance of the control of infection.

The exact time when the importance of preliminary drainage was first recognized is not known, but in the initial volume of the *St. Paul Medical Journal*, dated 1889, Arthur T. Cabot, in an article entitled "Drainage of the Bladder Through a Catheter in the Urethra," wrote as follows:

> It is often surprising to see how quickly the character of the urine changes for the better under this treatment. Let us take now an even more serious case, in which the obstruction in the prostate has led to a dilatation of the ureters and pelves of the kidneys. With this condition is usually associated a more or less pronounced degree of interstitial nephritis and consequent interference with the excretory function. The urine under these circumstances is abundant, but of low specific gravity. An inflammation which starts in the bladder of such a patient quickly extends up the dilated ureters to set up a pyelitis, and if relief is not afforded, the substance of the kidney is presently affected and a pyelonephritis is the result. It may be readily believed that a provision for the constant escape of the urine as fast as it reaches the bladder will do much to hinder or prevent this bacterial extension of the inflammation, and experience justifies this belief."

Consequently the practice of gradually emptying the overdistended bladder naturally gained favor and, in 1903, Guyon advised "to gradually and aseptically empty the overdistended bladder."

Thirty-four years of clinical experience and research have done little but confirm this trite observation so far as the advantages in respect to elimination are concerned. Until there is an unobstructed outlet, it is apparent that fluid intake as well as output must be limited; but once the outlet is rendered constantly open and unobstructed by use of a catheter the intake of fluid can be at once increased, and the better elimination of retained toxic substances can be brought about.

As a result of the definite improvement noted in those having diminished renal function and extensive infection, the idea became gradually fixed that all patients with obstruction at the neck of the bladder, accompanied by residual urine, should receive preoperative drainage of the bladder. This was usually accomplished by an inlying urethral catheter, and the idea became so firmly established in urologic minds that to attempt a prostatectomy without a period of preliminary drainage was looked upon as rank heresy. It was noted, however, that in the extremely debilitated this procedure did not always bring the desired results; and that if one wished to prepare the worst risks for operation it was, on the whole, safer to do a preliminary cystotomy and allow the patient to wait an indefinite period before undertaking the enucleation of the gland. Those who practiced this procedure were accused by their competitors of killing off the bad risks by suprapubic cystostomy and thus not being obliged to report them in their statistics of prostatectomy. However, it became evident to the thoughtful and observant that this method of treatment enlarged considerably the number of cases that were ultimately fit for operation, and Doctor Stevens, in charge of the Bellevue Hospital Urological Service, after adopting it as a routine procedure, lowered the mortality rate of prostatectomy in that hospital by more than 25 per cent. As a result, the two-stage prostatectomy became an accepted procedure for the poorer type of risk.

PRACTICE

It has always been difficult for the authors to understand why a surgical procedure, which is admittedly safer for the poorer risk, is not proportionally safer for the average case. We hear the same line of reasoning today among those who advocate resection for the extremely poor surgical risk, but reserve prostatectomy for the average case. Obviously multiple operations were not popular if a single operation could be made to do the work, and so every effort was made to prepare as many patients as possible by using an in-

* Read before the Urology Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25 to 28, 1936.

dwelling urethral catheter. However, this method of treatment gave rise to many complications not often emphasized. It had been observed in the two-stage operation that the prospective operative field was kept at complete rest following cystostomy, which in itself was the surest method of reducing infection in that area to a minimum. The prostate also diminished in size, often to such a degree that the amount of tissue obtained at the second operation was disappointing from the standpoint of bulk, and if secondary infection occurred, it usually limited itself to the bladder and did not result in pyelonephritis; but in the case of urethral drainage it was found that many of these patients had a latent prostatitis which became reactivated by the irritation of the urethral catheter. If the patient had an already impaired renal function, such an activated infection sometimes resulted in a pyelonephritis of sufficient severity to throw him into uremia, especially if the catheter became occluded and the bladder overdistended, which frequently occurred if the maximum of nursing care was not exercised. Furthermore, the presence of the catheter in the posterior urethra was often so irritating that instead of the gland diminishing in size as a result of the relief of the obstruction, it actually increased from the secondary engorgement incident to the trauma.

Cabot and Meland reported in 1933 the effect of inlying urethral catheter drainage uncomplicated by extraneous infection. Of seven hundred patients under observation during the years 1926, 1927, and 1928, they excluded all who developed fever when they first came under observation, all who had fever which might have been attributed to a cystoscopic examination, all patients with acute epididymitis, and, finally, all with any pulmonary complications. This reduced the group to 140 patients. On the average, these 140 patients, submitted to inlying urethral catheter drainage, developed within five days a fever lasting seven and one-half days, and sixty-three of these patients showed a decline in renal function as measured by phenolsulphonephthalein.

Theoretically, it may be that such febrile attacks, as reported by Cabot and Meland, result in immunization of the patient against postoperative infection, but practically his hemoglobin is lower, his weight less, his renal function diminished, and his appetite gone. He is, therefore, a greater surgical risk than he was prior to the insertion of the inlying urethral catheter. Such preparation is obviously of doubtful value, no matter what type of surgical treatment is to follow, and should, we believe, be reduced to a minimum. It should never be continued for a prolonged period.

When complete enucleation of the prostate was to follow this method of preparation, the reactivated inflammatory process in the gland was not always of serious moment, for with the removal of the gland *in toto* the original source of the infection was also removed, and the residual inflammation was given adequate drainage facilities through the suprapubic tube.

In the case of transurethral resection, conditions are entirely changed. Instead of being completely removed, only that portion of the gland which is obstructing is resected, and so there is left *in situ* the infected and engorged portion, a potential source of systemic infection and a probable source of immediate ascending infection; for in the case of transurethral resection no adequate drain is available in the form of a suprapubic catheter. If to this regrettable situation is added the fact that the resection has been carried out with a cautery loop which so effectually seals the entire surface for several days that all bacteria and their toxic products are prevented from any possibility of drainage, the wonder is not that these patients have a relatively short hospitalization, but that so many of them escape a generalized urinary sepsis.

This newer conception of the limitations of preliminary preparation leaves a much smaller group requiring any treatment before operation, and logically increases considerably the number of patients having cystostomies. Once the bladder has been opened, many urologists feel it is illogical to perform anything but a suprapubic enucleation as the second stage. If such enucleation carries the same mortality rate that transurethral resection does, this cannot be questioned, but figures do not bear that out. Large series of cases are now on record indicating that a mortality of 6 to 10 per cent is the best that may be expected from suprapubic enucleation, while there are over 5,000 cases recorded of transurethral resections with a mortality of less than 2 per cent. This indicates that transurethral resection, being a procedure of lessened risk, must be applicable to a larger group. In a report of 2,089 cases with prostatic symptoms, Alcock reported 5 per cent to have died without any surgery, showing in figures for the first time what a large group was refused treatment because of the risk of prostatectomy. Where formerly his prostatectomy cases averaged sixty-six years of age, the patients upon whom transurethral resections were performed averaged seventy-three years. The fact that transurethral resection is a less dangerous procedure made this possible, and, being a less dangerous procedure, it can be undertaken in cases where prostatectomy would not be justified. Hence, a preliminary preparation equal to that required for prostatectomy is unnecessary, for the patient need not be in as fine physical condition to survive the safer procedure. Moreover, as we observed earlier in this paper, the essence of all preliminary treatment is drainage or the removal of residual urine by some mechanical means. The accomplishment of this was presumed to result in the gradual improvement of the patient until he reached a sufficiently good physical condition to make operation justifiable.

With transurethral resection the eradication of residual urine is accomplished usually in less than an hour's time, and the patient, emptying his bladder without the aid of mechanical means, will naturally improve more rapidly in the restoration of his renal function and elimination of his infection. This could not have been expected if he were compelled to wear a suprapubic tube or an

indwelling catheter. In other words, the resection replaces the preliminary preparation in a majority of cases.

Since entering private practice eighteen months ago in Pasadena, we have followed this procedure. A review of the seventy-one private cases of prostatic obstruction which we treated by transurethral resection shows that 80 per cent received no preliminary preparation. Thirty-eight per cent of the group was over seventy years of age. The average period of hospitalization was less than one week. There was one death, occurring on the thirty-fifth day following an epididymitis—one of the few cases in which ligation of the vas deferens was not done. While this series is naturally not large, this same trend in the abandonment of preliminary treatment in resection is borne out by the Mayo Clinic figures for last year, when Doctor Thompson and his associates did 765 resections with but seven deaths, 65.7 per cent of the cases receiving no form of preliminary drainage.

In large clinics with well-organized, specially trained nursing staffs, the methods of treatment will of necessity vary from those imposed upon the individual who must work in different hospitals and depend entirely upon routine nursing. Thus, we find that in the Mayo Clinic series but 3.9 per cent of the patients received suprapubic drainage prior to resection during 1935, and Alcock had used it in only thirty of his 1,400 resections, an incidence of 2.1 per cent, while in our private practice we have employed it in 16 per cent of our resections.

In private practice without the help of a specially trained personnel, obstruction of an indwelling urethral catheter may have most serious consequences, not alone in the activation of latent urethral infection and in the production of pyelonephritis, as referred to earlier in this paper, but also in the causation of bleeding following resection. For this reason we believe that a safety valve in the form of a suprapubic tube is invaluable as an assurance of success. The establishment of such drainage we do not make a major surgical procedure, but usually insert the tube through a small suprapubic incision without opening the prevesical space. If treated in this fashion, even patients of advanced age can usually be up and about the following day. Thirteen patients, or 18.1 per cent of our patients, received suprapubic cystostomy. Their average age was seventy-one years. These thirteen patients had an average removal of 26.8 grams of tissue, and total time spent in the hospital for cystostomy and resections averaged twelve and one-half days per patient.

CONCLUSION

The advent of transurethral resection has not only diminished the necessity of preliminary preparation in the majority of cases of hypertrophy of the prostate, but has increased the number of patients for whom the surgical relief is feasible.

112 North Madison Avenue.

DISCUSSION

H. A. R. KREUTZMANN, M. D. (2000 Van Ness Avenue, San Francisco).—There is no question that marked changes in the preoperative care of prostatics have occurred since the introduction of transurethral resection.

It is possible, as Doctors Bumpus and Massey have stated, to operate on some patients with little or no treatment beforehand. The reason is that many come to surgery during the earlier stages of hypertrophy before complications, such as infection, renal damage and general breakdown of the patient, have occurred.

Formerly, these patients were told they had a beginning hypertrophy and were advised to wait until the gland had attained a good size before proceeding to the more formidable operation of either suprapubic or perineal prostatectomy.

We believe that the urologist is justified in removing these smaller obstructions. It saves the patient any future complications; the surgical risk is much less, and there is no need of preoperative preparation, as the authors rightly contend.

Our percentage of immediate operations is not nearly as high as that reported by the authors, as we do not agree that resection replaces the preliminary preparation in a majority of cases. The urethral trauma produced by the resectoscope and the possibility of opening up localized abscesses in the prostate, by the cutting loop, may result in a postoperative cystitis or pyelonephritis. The combination of an acute infection plus operation may produce serious complications, and even cause the death of the patient.

It has also been our experience that an indwelling urethral catheter is not the ideal method of draining the bladder when resection is contemplated. It sets up an irritation, so that bleeding during operation is greatly increased. We prefer, whenever possible, to insert a catheter suprapubically by means of a trocar.

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A. M. MEADS, M. D. (251 Moss Avenue, Oakland).—The preoperative preparation of the resectoscopic patient has been more or less a matter of individual opinion, and a free discussion will undoubtedly be helpful. Like many others, I have followed the leader in the treatment of those coming for relief from prostatic obstruction, but of recent years it has gradually dawned upon me that probably the preoperative care in such cases has been overdone. In six individuals, over a period of years, with acute hemorrhage from the prostate, in which the clot-distended bladder demanded an immediate operation without any preparation, a suprapubic prostatectomy was followed by uneventful recovery in five instances, the sixth dying because of self-imposed delay. Meanwhile, we had been noticing that under the long preoperative routine with the indwelling catheter or suprapubic drainage, the treatment was often accompanied by pyuria, temperature, epididymitis, and occasionally fatal pyonephrosis. In many instances these complications must have been due to too much preoperative care, especially where the urine, the renal function and the blood chemistry were normal, when first seen.

There is no doubt that emphasis upon preoperative care has been primarily responsible for reduction in the mortality following all forms of prostatic surgery in the last thirty years; but to apply a rigid routine to all cases, as has been advised by many in the past, has proved to be a mistake which is now being recognized. When one sees, at a large clinic, a patient enter the hospital on Saturday and resectoscoped on the following Monday, one cannot help but wonder if his own long preoperative routine has not only been unnecessary, but harmful. A reflection of this opinion is seen in the recent plea for intermittent catheterization in preoperative care to replace the indwelling catheter. I have always felt that a prostatectomy and a resectoscopic operation were major procedures, and that short cuts in the preoperative care would lead to postoperative difficulties where a long preparation was necessary. I still think that, given two cases equal in every respect, the preoperative preparation for both should be the same, regardless of the type of prostatic surgery decided upon. We study each case, regardless of the methods of operation to be used, individually, and a rational preoperative program is carried out on the basis of the gen-

eral physical condition, blood chemistry, renal function, blood count, cardiovascular condition, etc.

It is difficult to compare statistics of one urologist with those of another. Each one has his own idea as to which case is to be resectoscoped and which is to be relieved by prostatectomy. It is our custom to bring the patient up to his best by preliminary treatment, and then decide—according to the type of obstruction—what procedure should be followed out to give the desired relief.

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J. C. Negley, M. D. (527 West Seventh Street, Los Angeles).—In discussion of the paper by Doctors Bumpus and Massey, one cannot help but notice that most of their quoted statistics are from great distances, and from the clinics of so-called enthusiastic resectionists. To properly evaluate any surgical procedure one must not choose the top-notch performers, but take a cross section of the average practitioners and their results. What the public and the profession wish to know is, what is going on in our own locality, particularly so since many of these patients of seventy years or over would never live to reach Rochester or Des Moines. I submit the following tables from Los Angeles and vicinity, making contrast as to surgical procedures, preparation, complications, stay in hospital, mortality, etc., between prostatectomy and resection. I have listed, in Table 1, charity patients, and in Table 2, private patients.

Table 1.—*Charity Patients: Comparative Findings*

	Prostatectomies, 100	Resections, 100
1. Suprapubic drainage	98%	6%
Indwelling catheter, preliminary	100%	72%
2. Average days of preparation	17	12
3. Prostatitis	57%	35%
4. Fever over 100, chills, preoperative	8%	6%
Fever over 100, chills, postoperative	21%	29%
5. Complete retention	32%	7%
6. Residual urine over 1½ ounces	77%	50%
Urine infected on admission	91%	78%
7. Kidney damage	69%	58%
Stay in hospital (days)	42	28
8. Deaths	6	11
Uremia and pyelonephritis	4	2
Coronary diseases	1	2
Shock and hemorrhage	1	6
Cholelithiasis	0	1
Mortality rate	6%	11%

Table 1 is a résumé of the work of some thirty urologists, and would seem to show:

1. All of them still prefer some sort of preliminary drainage in prostatectomies, and in 78 per cent of their resections.

2. There is a difference of only five days in favor of resections in preparation.

3. Prostatitis is a factor in only 50 per cent of cases.

4. Untoward results of any degree from an indwelling catheter is present only in 7 per cent of the combined methods. More cases have fever, chills, etc., after than before operation.

5. Almost five times as many complete retentions in prostatectomy would seem to compel more pretentious preparation than in resections.

6. Another reason why resections need less preparation is because many of them are done for symptoms rather than for large amounts of residual urine.

7. The large proportion of damaged kidneys (pyelonephritis) shows that many of them may have their fever, chills, etc., from this reason, regardless of what is done preoperative.

8. Resection deaths outnumber prostatectomies, two to one; but most of them were surgical accidents.

Table 2 is a résumé from a large private hospital, representing the work of general surgeons as well as urologists.

1. Difference in figures here is due to the fact that some general surgeons prefer one-stage operations.

2. A difference of only eight days in favor of resection.

3. Again, the untoward results of an indwelling catheter is present in only 8 per cent of combined methods.

4. Complete retentions in prostatectomy, more than two to one, would seem to necessitate longer preparation.

Table 2.—*Private Patients: Comparative Findings*

	Prostatectomies, 100	Resections, 100
1. Suprapubic drainage	75%	3%
Indwelling catheter, preliminary	88%	41%
2. Average days of preparation	14	6
3. Prostatitis	60%	49%
4. Fever over 100, chills, etc., preoperative	10%	6%
Fever over 100, chills, etc., postoperative	21%	60%
5. Complete retention	14%	6%
6. Residual urine over 1½ ounces	23%	21%
Urine infected on admission	87%	67%
7. Kidney damage	51%	37%
Stay in hospital (days), average	21	15
Deaths, total	2	12
Pyelonephritis and uremia	2	8
Hemorrhage and shock	0	2
Lung abscess	0	1
Opiate reaction	0	1

6. Impossible to estimate because most of this having been done before admission.

7. As in charity cases.

8. Resection deaths outnumber prostatectomy deaths, six to one, and 75 per cent of them due to pyelonephritis and uremia. The most important factor in this series bearing on preparation is that 73 per cent of the resections were in one day and operated the next; 75 per cent of the deaths falling in this group. Surely, this shows that preparation might have helped.

In conclusion, I would state:

1. Any group of patients of 65 or over, many of whom have myocardial damage, kidney damage, prostatitis, infected urine, distress, etc., cannot be standardized, but must be an individual problem, both as to operation and type of operation. Certainly, one who has reached the prostatic age is entitled to a rest in bed for a week or more before surgery is done, as a reward, if for nothing else!

2. The title of Doctor Bumpus' paper is really a misnomer, as he does not do what is generally known as a resection, but does a Young punch or, in reality, a near-prostatectomy through a closed bladder, in that he does no deep fulguration.

3. In the ordinary bladder-neck obstruction, time is not an important element, nor are they emergency operations; so why make haste from an economic standpoint?

PULMONARY CAVITY: OPTIMISM SURROUNDING ITS INTELLIGENT TREATMENT*

By F. M. Pottenger, M.D.
Monrovia

Discussion *by Philip H. Pierson, M. D., San Francisco; Sidney J. Shipman, M. D., San Francisco; Edwin S. Bennett, M. D., Olive View.*

Out of much discussion, now and then a truth is established which thereafter seems so self-evident that one wonders why it had not been recognized before. But knowledge is evolutionary. Only rarely is a fact promulgated which is not based on some other well-recognized fact or principle which is closely allied to it and which has been previously applied in daily use.

PRESENT-DAY UNDERSTANDING OF CAVITY FORMATION A RECENT CONCEPTION

Cavities have been suspected in tuberculosis ever since the disease has been carefully studied clinically, and have been proved to exist ever since

* Read before the General Medicine Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

the lungs have been studied postmortem. But the full significance of cavity as a focus from which the disease spreads in the body of the tuberculous patient; the manner in which it infects members of the community at large; and the problem which it presents in therapy is a comparatively recent conception. Formerly, when cavities were found in the lungs the prognosis was considered to be grave. In the minds of most clinicians their presence meant the death of the patient. Today, however, many cavities warrant a favorable prognosis under general hygienic treatment alone, and some of the most serious ones may be successfully treated by our newer methods.

An adequate conception of cavity could not possibly have been had prior to the discovery of the tubercle bacillus fifty-four years ago; and our present conception has been greatly influenced by studies made by means of the x-ray. So the real appreciation of cavity is of very recent origin, and specialists are just now giving out their conception to general medicine.

INFECTION SIGNIFICANCE OF CAVITIES

A fact that all medical men should appreciate and one that I desire to emphasize, is that, from the standpoint of scattering infection, any cavity which throws off bacilli (and nearly all of them do) may not only be dangerous to the life of the one who possesses it, but also to society. I say "may be" advisedly, for it is possible to remove most of the danger by properly directing the patient. Under no circumstances would I create unwarranted phthisiophobia among practitioners of medicine, for when they are imbued with fear intelligent interest lags. One of the great accomplishments of the modern crusade against tuberculosis is the mitigation of the fear of the disease, which formerly possessed the medical profession. To say eradication would be putting it too strongly, for fear still lurks in the background and comes out in the open at unexpected times.

CAVITY RESOLUTION AN INDIVIDUAL PROBLEM

From the standpoint of healing, cavities must be considered individually. Not every patient who has a cavity in the lung is going to suffer from metastases and death, whether or no. It is not a matter of fate. Some will heal readily; others with difficulty; others not at all. The presence of cavity means that the patient must be treated with intelligence in order to afford him the best chance of cure, and those living intimately with him the best chance of escaping infection.

Cavities are not only amenable to treatment, but many of them heal spontaneously. This is especially true of the early cavities found in connection with acute exudative tuberculosis, particularly if situated sufficiently far away from the pleura so that their closure is not interfered with by adhesions; sufficiently far from the hilum to avoid the dense unyielding structures which make up the root of the lung; and sufficiently far from the diaphragm to avoid the pull of its repeated contractions. Other cavities will heal, too, but those just described heal quite readily when properly treated. This group includes many of those which clinicians have reported on favorably since hygienic living, with rest in the open air, has dominated treatment. Such cavities, if improperly treated, however, pass on to a state in which healing is more difficult or impossible of attainment.

FACTORS IN CAVITY REPAIR

Healing of cavity, whether with or without mechanical aid, depends on establishing, on the part of the patient, an adequate physiologic balance plus an adjustment of lung volume to the size of the thoracic cage. Specific resistance is probably nothing more than a heightening and quickening of normal physiologic action. Early in the course of the disease, when the greater proportion of pulmonary tissue is elastic and free from disease, the chief form of compensation is brought about by emphysema, particularly in the adjacent and near adjacent pulmonary tissues. This, together with the limited motion of the side, which is caused reflexly by the shortening of the apical muscles, particularly the sternocleidomastoideus, scaleni and subclavius above, and the crus and central tendon of the diaphragm below, will prove effective in many cases, provided the patient, through physical and psychical rest, reduces his respiratory and circulatory demands to a minimum.

Some of this type, however, will need further aid in order to bring about closure; and others which appear to be far more serious will yield to simple measures.

TUBERCULOSIS SYNDROMES

Tuberculosis is usually first seen by the family physician or by a specialist who devotes his study to some other phase of medicine whom the patient is led to consult because of the fact that the disease masquerades under symptoms which the patient interprets as belonging to a specialty other than that of the chest; for it must be remembered that tuberculosis often shows syndromes which simulate lesions in other organs and systems of the body so closely that we speak of distinct types. The neurasthenic (rundown condition), cardiovascular, gastro-intestinal, laryngeal, bronchitic, influenzal, pleuritic, and hemorrhagic types are all well recognized.

It is necessary for all physicians to be on the lookout when these syndromes present, and particularly if sputum is present, because this usually means a break in lung tissue with bacilli present; and quite often, if the onset is sudden, it means the presence of cavity. The future of the patient and the interests of the family both demand a diagnosis and the immediate institution of the proper treatment, and the application of the rules which protect other members of the family and society.

With this done, we approach both the healing of the patient and the security of those who come in contact with him with confidence. Not unmindful of the fact that tuberculosis may spread from any focus within the body by way of the lymph and blood stream, yet cavity is the focus which carries with it the greatest danger to the

patient, and is the source which furnishes most of the bacilli which infect others, so it is evident that its early detection is important to both the patient and others.

IMPORTANT RÔLE OF THE GENERAL PHYSICIAN IN CAVITY DIAGNOSIS

Since tuberculosis is usually first seen by physicians other than specialists in tuberculosis, if it is to be diagnosed early it must be diagnosed by them. This is not only their duty, but their privilege. In what way can a physician render a greater service to those patients who seek his advice than by detecting and treating such a serious disease as tuberculosis early, when it is curable, instead of allowing it to progress to a crippling and often a fatal termination? and in what way can he render a greater service to the friends of the patient than by protecting them from becoming infected?

There is nothing in the diagnosis of tuberculosis that lies beyond the capabilities of the well-trained physician, provided he assumes the same interest in it that he does in other diseases and, furthermore, provided he develops a proper diagnostic procedure. There should be nothing to prevent him from diagnosing a cavity when present, except a failure to examine sputum and take an x-ray of the chest; and the necessity of these should both be suggested by the clinical history.

IN CONCLUSION

A systematic method of approach, which consists of three procedures: (1) taking a careful history; (2) examining any sputum that may be present by the concentration method or guinea-pig inoculation, if necessary; and (3) the reading of a good x-ray plate should detect tuberculosis in all but the most difficult cases, and in open cavity cases it should detect all. A tuberculosis-minded profession, and a profession with the confidence in itself which its training warrants, should become the greatest factor in the further reduction of the morbidity and mortality from tuberculosis.

Pottenger Sanatorium.

DISCUSSION

PHILIP H. PIERSON, M. D. (490 Post Street, San Francisco).—I feel that this contribution of Doctor Pottenger's is very timely, for it directs our attention specifically to a phase of the disease which we must consider very seriously.

1. It must be remembered that a very large percentage of pulmonary cavities do not give physical signs, so-called silent cavities; and in view of what Doctor Pottenger has said, it is most important to supplement our examination with good stereoscopic x-ray films.

2. Comparative roentgenograms are essential to determine the disappearance of cavities, and in those cases where conservative measures do not succeed, collapse should be instituted before a cavity has persisted too long. This is particularly important in peripherally located cavities.

3. Cavities must be closed before patients are discharged, for even small ones frequently enlarge and disease is spread from this area very rapidly. I want to emphasize this point particularly, because I feel that most readmissions to hospitals and sanatoria are due to the failure to have the cavity thoroughly closed at the time the patient is discharged.

SIDNEY J. SHIPMAN, M. D. (490 Post Street, San Francisco).—In this succinct discussion of pulmonary cavities Doctor Pottenger has outlined the chief factors in the pathogenesis and healing of tuberculous cavities. It is gratifying to find him stressing the well-rounded concept of tuberculosis, as it affects the individual as a whole and his relation to his environment, rather than taking up the question of cavity formation and repair apart from the resistance and general make-up of the patient himself. Too often nowadays the so-called specialist in tuberculosis, as well as thoracic surgeons, consider the treatment of cavities and forget the treatment of the patient himself.

There are two points of view in approaching the problem of active tuberculosis, particularly as manifested by cavity formation, when, as Doctor Pottenger remarks, the sputum generally contains tubercle bacilli. One is the public health concept which requires isolation of the patient or closure of the cavity to prevent the spread of infection. Undoubtedly, from the long-range standpoint this is the more important attitude, as far as the control of the tuberculosis problem is concerned. This, I suppose, is the viewpoint which leads those who treat tuberculosis to strive so vigorously to close every cavity and render every sputum negative, even when procedures adopted threaten to shorten the life of the individual. The other viewpoint considers the longevity of the patient as of paramount importance, even though he may be a menace to his environment until the time of his death because of the unclosed cavity. In connection with this latter view, it is probably well that Doctor Pottenger emphasized the fact that "it is possible to remove most of the danger by properly directing the patient." Herein lies the educational function of the sanatorium and of the physician. It is probable that the proper attitude for practicing physicians today is a lively interest in the public health problem and a wholesome desire to render sputum bacillus-free, if at all possible, without too much menace to the life of the individual. There are, however, even today, few who advocate extensive rib resections and the like in people of advanced years merely with the hope of closing cavities.

A discussion of the specific factors active in cavity repair is of extreme interest. Some of them we know and some of them we merely suspect, and doubtless there are others which none of us have considered. Certainly, we are hard put to it to explain the behavior of all cavities under various methods of treatment. As Doctor Pottenger remarks, some close with scarcely any treatment at all; others remain open in spite of most vigorous surgical measures. All of us have seen what appeared to be a satisfactory pneumothorax in which thoracoscopy showed no adhesions to be present, and yet a small cavity maintained its size beneath the pleura or in the interior of the lung. It might even cause a bulge at its location, which was difficult to explain except on the basis of one-way valve action in the bronchi, as noted by Chevalier Jackson time and again. Postmortem studies of bronchi leading from pulmonary cavities reveal the high rate of tuberculous infection in the walls and numerous partial stenoses. This factor calls for more complete investigation. With a wealth of pulmonary tissue surrounding a cavity, new explanations must be offered as to why collapse does not occur, and undoubtedly new methods of treatment must be devised to obtain satisfactory healing. One of the interesting features of the study of tuberculosis is the wealth of unexplained phenomena which still exists in dealing with this well-known disease upon which so much work has been done since the discovery of the tubercle bacillus over fifty years ago. Doctor Pottenger has done well to emphasize the part which general medical men should play in examining patients for early diagnosis; but I suspect that so-called "chest specialists" may well join hands with them in searching for the answers to so many questions which still remain enigmas to most of us.

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EDWIN S. BENNETT, M. D. (Olive View Sanatorium, Olive View).—I am in entire accord with a feeling of optimism regarding cavity closure in pulmonary tuberculosis, but I should like to emphasize by italics the word "intelligent," as pertaining to the adequate treatment of persons who have pulmonary tuberculosis, regardless as to whether demonstrable cavitation is present in the lungs. Furthermore, intelligent treatment should mean not only

sufficient knowledge on the part of the attending physician, but include his instruction of the patient in order that the patient may become better informed as regards the pathology, care, and after-care of this disease.

Doctor Pottenger quite rightly starts at the beginning in emphasizing that accurate and early diagnosis is essential, and points out as one of his three criteria in making a diagnosis the taking of a careful history. This is strikingly borne out when one realizes that a survey of the records of most large sanatoria will show that, from the history alone, patients when admitted have in all probability had tuberculosis for at least a year and a half. Thus, it is self-evident that history taking is important, and should not be delegated to one who is not a trained investigator.

There is a wide variation in figures as regards the percentage of cavities which close spontaneously, and this is readily understood when one realizes that the size of the cavity and the location in large part determine the outcome in patients who do not receive collapse therapy, as well as those who do. Diagnostic technique has improved in the last decade, until now small intrathoracic cavities may be visualized, which formerly were overlooked. However, it must be admitted that the present technique is not perfect, and that in all probability many cavities which are a menace and harbor great numbers of tubercle bacilli are not now demonstrable by means of any present diagnostic method.

In the intelligent treatment of pulmonary cavitation our efforts are dual, namely, the protection and cure of the patient, and as a public health measure in protecting the contacts. For the sake of the patient and the general public, and for economic reasons, the effort should always be made to close as promptly as possible all cases of open tuberculosis in order that these cases will no longer be a menace to themselves and to others. Thus, the modern and intelligent treatment of tuberculosis is largely a matter of compression therapy. At present no up-to-date sanatorium whose patient population is largely composed of sputum-positive cases is fulfilling its duty to the patient and to the public unless from 70 to 80 per cent of its patient population are receiving some form of compression therapy. Such treatment is not radical, even if begun early, but is simply a proper realization of the problem at hand, namely, making the patient sputum-negative and sputum-free without unnecessary delay. Taken by and large, artificial pneumothorax is unquestionably the greatest aid we have at our command. This procedure alone, or combined with phrenic surgery, will result in cavity closure in a large percentage of cases, with a minimum of risk to the patient. According to the size and the location of the cavity, other procedures (such as temporary phrenic paralysis by crushing, or wax plombage) are often the methods of choice. In recent years, possibly by accident, we have learned that pneumoperitoneum is of therapeutic value, not only for pathology present below the diaphragm, but for unilateral or bilateral pulmonary disease in cases where pneumothorax has not been feasible or possible. In those cases where other simpler methods have failed, a thoracoplasty is indicated, not only for the benefit of the patient, but simply as a public-health measure. However, from time to time patients are seen with a cavity so located that even complete posterior and anterior thoracoplasty will not obliterate the cavity. When such a problem presents itself, at times the only answer is a pneumonectomy with complete extirpation of the involved lung. Radical as this procedure seems now, I feel that within the next five years our knowledge of cases and thoracic surgery technique will improve to the point where this operation will not seem any more radical than did thoracoplasty five years ago.

In all cases of contemplated compression therapy, it is, of course, understood that the patient is entitled to, and must have a careful and complete history, physical examination, and laboratory study, in order to determine as accurately as possible the degree of risk that is involved in any of the procedures heretofore mentioned.

In conclusion, I wish to emphasize that optimism should be the note stressed in the closure of cavitation by intelligent treatment, and we all are indebted to Doctor Pottenger for calling our attention to the fact that we have a perfect right to be optimistic, and that the outlook for the future is becoming brighter all the time.

EXPERT MEDICAL TESTIMONY IN CALIFORNIA COURTS*

By HAROLD DEWEY BARNARD, M.D.
AND
GEORGE E. TUCKER, M.D.
Los Angeles

DISCUSSION *by Andrew S. Lobingier, M. D., Los Angeles; Hubert T. Morrow, Esq., Los Angeles; Hartley F. Peart, Esq., San Francisco.*

THE frequent contributions to current legal and medical publications on the subject of "expert medical testimony," together with the wide differences of opinion expressed by the contributors, lead the unbiased investigator to conclude that our usual court procedures, as they relate to this matter, have not been and are not now altogether satisfactory.

There may be other methods which might properly be followed if justice is to be obtained in our courts, and both parties to a legal action are to enjoy their guaranteed rights of equality before the law.

One does not need to proceed very far in his investigation of the subject to learn that many representative members of both the legal and medical professions feel that some change should be brought about which will more certainly and equitably serve the ends desired.

WHY COURTS HAVE NOT PLACED EXPERT MEDICAL TESTIMONY ON A SOUNDER BASIS

It is not strange that there should be such widespread differences of opinion among lawyers and doctors as to *what* should be done or the real need for doing anything.

If, under a system of judicial procedure, a staff of attorneys and doctors aligned behind a plaintiff are attacking one goal, while another staff of attorneys and doctors aligned behind a defendant are defending that same goal, in spite of the rulings of the court, it usually follows that the better-trained, stronger team will win the objective.

Trial procedures in our courts, to the uninitiated, too frequently resemble the scenes of a Roman holiday. The interests of justice appear to be overlooked.

Not infrequently counsel and court become so thoroughly enmeshed in the "barbed wire" of legal entanglements that the jury, witnesses, and spectators have difficulty in knowing what it is all about, while Justice, which presumably is to be served by such a procedure, closes her eyes, folds up her scales, lowers her rusty saber, and emerges from the courtroom to await another and more favorable opportunity in which to issue a challenge to the legal rights of members of society.

If such scenes were not so serious and pathetic, and human nature so devoid of humor, they would be looked upon as being nothing other than ludicrous.

* Read before the General Medicine Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

THE DILEMMA OF THE PHYSICIAN IN A PERSONAL INJURY CASE

On those occasions when the doctor, serving as an expert in a personal injury action is drawn into such a picture and called upon to express an unbiased, unprejudiced, truthful opinion regarding the seriousness and extent of a plaintiff's injuries, if that plaintiff pays for that much-needed opinion, how in the name of that same justice that is presumed to prevail and govern litigation can an expert be expected to willingly "bite the hand that feeds him"? Once convinced of the merit of a case in which he has been employed, it is only natural that he should, in his desire to be of help and service, become an advocate as well as a witness.

If he is not in the case to help the plaintiff, the court, the jury, and the spectators know that at least he was hired for that purpose. His failure to properly serve the plaintiff's interests is looked upon as evidence of either incompetence or incapability, or, what is more unfortunate, he may even be suspected of "having been reached."

Defendant's experts are in the same relative position with this usual exception—they expect to be paid, whatever the outcome: win, lose, or draw. People who cannot pay are seldom made defendants in such an action. From a financial standpoint, entirely aside from the ethics involved, experts employed on a contingent basis cannot afford to be too neutral, unbiased, unprejudiced, or even truthful: and who would deny the unfortunate plaintiff the right to fight fire with fire and obtain the services of his expert, even though it is understood that his services may not be paid for unless, as a result of a favorable verdict, funds are made available for that purpose? No one would have you believe that medical experts will willingly commit perjury to benefit a client—at least, not often. In their zeal to be of assistance in the winning of a case and to sustain their expressed opinions, they may be forced to withhold information that would weaken their position.

Too many of us have known of instances where experts, when under the fire of belligerent and highly skilled cross-examination, are obliged to parry a thrust that was intended to penetrate the armor with which our present court system forces them to protect themselves as a matter of self-defense.

Too frequently attorneys feel that their well-prepared case is being undermined by adverse testimony, and will resort to methods of attack on a witness that he recognizes as a deliberate effort to impugn his motives and raise a doubt as to his honesty and capability.

THE SITUATION WHEN PHYSICIAN IS PLACED BETWEEN OPPOSING COUNSEL

In a "battle of wits" between opposing counsel and an expert, the attorney is battling over familiar ground—is schooled in the "art of cross-examination" intended to confuse and confound. Forcing his witness to give a "Yes" or "No" answer to a question may be in conformity with ethical practices in court, while under other circumstances it would be looked upon as a "foul blow aimed below the belt."

Neither lawyers nor doctors can ignore the challenge that such a situation creates.

COURTS NEED AND SHOULD DEMAND UNPREJUDICED EXPERT MEDICAL OPINION

If justice is to be established, our judges should be given the authority, and such authority should be exercised so to conduct the trial of a case that intelligent, capable, unbiased, unprejudiced, nonpartisan expert opinion can be placed before him and the jury.

Such opinions should come in response to questions submitted by the court. If they are irrelevant and immaterial, let the attorneys for both parties object, but let the force and effect of these objections result in nothing other than a contribution to delay.

The members of the medical profession have too meekly endured the ridicule that has been directed at them because of their willingness to assist counsel as witness to help him prove his case.

Neither judge nor gentlemen of the jury are capable of determining whether or not the expert is telling "the truth, the whole truth and nothing but the truth, so help me God"; so that if the truth were told they would not be able to recognize it as such.

In fact, opposing counsel too frequently place every legal obstacle at their command in the way of experts to prevent them from telling any of the truth that will seriously damage their case.

PRESENT LEGAL PROCEDURES PREJUDICIAL TO UNBIASED EXPERT MEDICAL OPINION

The court, the jury, the public know that this is true. It is for the purpose of focusing attention on this subject that this paper is being offered.

How refreshing it would be if medical experts were permitted to talk unhampered and unvexed by lawyers' objections, and in an atmosphere of freedom so that the truth would be permitted to emerge.

Is it not reasonable to suggest that the medical expert should be so chosen as to insure intelligent, scientific opinion being brought to bear on the case that is before the court?

Is it too much to ask that the doctor who serves as a medical expert should be looked upon as an honorable member of a dignified profession and entitled to be treated as such?

Are we justified in adding our protest and joining with those other protestants who insist that an expert is entitled to every consideration and demand that he receive it at the hands of both court and counsel?

No claim to originality can properly be made for any suggestions offered here: however, anyone should feel justified in making the observation that perhaps the present system of taking an expert's testimony no longer adequately serves the purpose for which it was established.

EARLY EFFORTS OF CALIFORNIA TO REMEDY COURT PROCEDURES

California was the first state in the Union to pass a law that was intended to overcome some of the objections which were so commonly offered to the usual court procedure. It provides that the court, upon motion of either plaintiff or defendant, may appoint an expert to make the necessary investigations and testify at the trial. It further provides that the court may appoint such an expert on his own initiative.

This law was enacted in 1925 as Section 1871 of the Code of Civil Procedure.

In 1909 Dr. Andrew Stuart Lobingier succeeded in bringing about the adoption of a resolution by the Los Angeles County Medical Association, calling for the appointment of a committee on "expert medical testimony." This committee was to confer with a similar committee of the Los Angeles Bar Association. The two committees, working jointly, were to prepare an act relating to expert testimony to be submitted to the legislature.

It was believed by the members of this joint committee that a bill could be drawn which, if adopted, would lead to the correction of some of the evils that had crept into the usual practice before the courts in connection with the presentation of expert testimony.

It was hoped that their suggested changes would restore the value of the services of the expert, eliminate the disgraceful spectacle of highly conflicting, partisan testimony coming from honored members of the professions, and permit both judge and jury to have unbiased opinions from experts of unquestioned ability. These opinions were to be given full consideration in arriving at a decision.

If time would permit, it would be very interesting to review the history of the efforts of Doctor Lobingier and his associates, which extended over a period of sixteen years. In passing, it should be stated that without the enthusiastic help and support of Mr. Oscar Mueller, representing the Los Angeles Bar Association, Mr. A. H. Koebig, representing the Society of Engineers, Judge Frank Oster, Dr. Thomas J. Orbison, and Senator Jones of San Jose, who gave sympathetic and valuable assistance, this legislation in all probability would not have passed even at the time that it did.

The first draft of a bill was prepared and submitted in 1911. It was rejected by the legislature at that time and a new and similar bill was introduced in 1913, which attracted more attention, but was rejected by the Assembly. In 1915 the bill passed both houses of the legislature, but was vetoed by Governor Johnson. In 1917 and 1919 the measure did not come up for consideration, but in 1921 it passed both houses of the legislature and was vetoed by Governor Stephens. It was finally passed in 1925.

Too much credit cannot be given to Dr. Lobingier, Mr. Oscar Mueller and their associates for the success of this long drawn-out, hard-fought battle, which ultimately resulted in a splendid victory. Additional credit should be given to these gentlemen because of the many years while they were giving of their time and efforts they also were called upon to finance themselves.

The proponents of Section 1871 felt that under its provisions the major difficulties encountered by the courts in obtaining dependable expert testimony needed for the proper and impartial administration of justice had been overcome.

ADDITIONAL CHANGES NEEDED

While definite improvement is evident, there still remains ample opportunity to go further and bring additional value of expert testimony to the court and forever destroy any grounds that the critic may stand upon when he refers to this form of testimony as a "racket," and those who are employed to offer it as "racketeers."

It not infrequently happens that a plaintiff's attorney, because of the insufficient finances of his client, is obliged to take his case on the basis of a contingent fee. If medical expert testimony is to become available to him, it also must be obtained on a contingent basis.

EXPERT MEDICAL TESTIMONY FOR THE PLAINTIFF

Ethically, perhaps, this is not right, but if there is to be even any semblance of equality before the law the plaintiff who needs help must be in a position to obtain it on any basis that is not illegal. If such expert testimony reveals that it is decidedly partisan, that it is colored and biased and, in the effort to be of assistance, the expert reflects his personal relationship with the injured, he can at least defend his action by the thought that he had a worthy motive. He wanted to help his fellow man who needed it, and if they won their case he was not averse to a little contribution to his pocketbook.

Incidentally, he may feel that to collect his fee his testimony must be convincing—the disability must be established and he must do his part in assisting the jury to determine the measure of damage to be awarded.

EXPERT MEDICAL TESTIMONY FOR THE DEFENSE

A defense medical expert, on the other hand, is in relatively the same position as that of the plaintiff. He also is receiving a fee. He is there to minimize the extent of injury, reduce the amount of award and, if possible, make a permanent disability appear to be only temporary.

Not infrequently, thinly disguised perjury has all of the force and effect of the wholesome truth. At this point, may we ask which of the motivating forces that control human conduct is the more effective, the hope for reward or the fear of punishment?

The expert witness of limited ability may direct his efforts too enthusiastically toward obtaining a satisfactory verdict for the plaintiff because of his hope for financial reward.

The expert witness for a defendant may be guided in his efforts and approach his task with equal enthusiasm, knowing that failure to be impressive and convincing may be a bar to his future employment for a similar purpose.

DIFFICULT POSITIONS OF BOTH SIDES

Such are difficulties of the scrupulously honest expert, who finds his testimony must be injurious to the interest of his employer, that he feels the delicacy of his position. He wishes that he might be permitted to escape. Carefully prepared apologies—though offered in profusion—seldom save his face. Subtle coercion not infrequently puts him on the right track before it is too late. He may even be recalled to correct his mistakes and partially overcome the effect of his damaging admissions.

Insurance companies, because of the frequency with which they are confronted with dishonest efforts to recover damages, are constantly on the defensive, and if they would succeed in preventing excessive awards, or the payment of claims for which there was no liability, their methods must be made to meet the practices which have grown up under our present court system.

Judges of the court, with possibly a rare exception, can be said to be honestly endeavoring to measure up to their responsibilities. There are those who know more, who have a better understanding, who are better informed medically as well as legally, and who conduct a trial more satisfactorily for all parties concerned.

In the light of what is known as to the existence of such conditions as we have enumerated, it is apparent that there is need for the more general use of medical experts on the basis provided for in Section 1871.

QUALIFICATIONS OF A MEDICAL EXPERT

But before leaving this subject, we might for a moment consider *who is an expert?* What qualifications are necessary to segregate a member of the professions from the ranks of those merely licensed to practice and exalt him to the position which places him among those recognized as *experts?* Such a question should not be answered by generalization. It requires that we should be specific and take into consideration all of the circumstances surrounding a given case.

For the purpose of our discussion, however, it may be safe to lay down certain rules which, if followed, would generally lead us to the individual whom we are seeking. We are referring now to the selection of a medical expert.

It must be obvious even to the uninitiated that an expert cannot hope to cover the whole field in which his profession operates. He is not able to qualify as an expert in every part or branch of that field. He who presumes to hold himself out as a specialist on "the skin and its contents" exposes himself to the possible discovery, in spite of his protestations of innocence that he is an impostor.

Present court practices are designed to provide plenty of embarrassment and many unpleasant moments for the expert of this type.

In this respect, members of the medical profession have been guilty of attempting "to take in too much territory," and have unwittingly offered themselves in an unfamiliar environment for the slaughter. Attorneys under such circumstances are willing to accommodate such an individual if they feel that they are adequately prepared. The scene adds color to the play.

He should expect no sympathy if, in the agony of his embarrassment, he wriggles and squirms and looks helplessly to the court for assistance.

The medically unqualified psychiatric expert should not be chagrined if during the ordeal of examination the spectators confuse him with the victim of delusions and hallucinations.

Egotism may be a normal attribute of man, but egomania we know to be a manifestation of a disordered brain.

One who is not an expert, but permits himself to be legally qualified as such, should move cautiously. Our medical associations have established a fairly satisfactory yardstick which can be applied to measure the qualifications of an expert. If a responsible group of fellow practitioners are willing to certify to the courts that a physician is a capable expert in a certain field, the litigants need have no fear that their interests will not be safeguarded, or that the witness lacks the necessary qualifications to meet the demands of justice.

The national movements for certification of experts in the various branches of medicine and surgery should prove to be most helpful to the courts—if the standards are sound and the certificates are issued only to those qualified to receive them.

Conflicting opinions have been so freely expressed by prominent judges and practicing attorneys as to what should be done to correct the existing unsatisfactory use of expert medical testimony in the California courts, that we perhaps should hesitate to offer any suggestions or recommendations.

IN CONCLUSION

In the face of all of these conflicting ideas, the following are our concluding observations:

1. Expert medical testimony in California, except as presented by a court expert, is a purchasable commodity and subject to all the distortion and mental obliquity which such a system makes possible.

2. Section 1871 of the Civil Code is capable of correcting, to an appreciable degree, the altogether too often abused privileges which the partisan expert witness finds open to him.

3. The efficient functioning of Section 1871 is in direct proportion to the finesse of the judges in their selection of honest, impartial and capable medical court witnesses, and in assisting and making possible the proper presentation of their testimony.

4. Section 1871 is worthy of much wider usage in the State of California, and would go a long way to eradicate the ridicule and often contempt which the false position of the medical expert allied with either litigant often brings upon himself and his profession.

5. A more thorough and impartial application of medical science to the needs of law deserves a much greater effort on the part of the two learned professions.

The writers make no professions of profundity in this paper. It is hoped the discussion will provide food for thought.

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DISCUSSION

ANDREW S. LOBINGIER, M. D. (307 West Eighth Street, Los Angeles).—This review of the subject of giving expert medical testimony in the courts of California is a comprehensive detail of the efforts some of us have put forth over a period of many years to establish, through legislation, a dignified and competent method of so presenting such evidence.

The Act (1871), which now is in force, authorizes the court to appoint its own expert when testimony for the plaintiff and defendant is so conflicting as to justify an unprejudiced expert opinion.

The interest in this subject reached an acute stage during the Thaw trial. The Los Angeles Bar Association requested me to discuss the subject of medical expert evidence at a dinner given in honor of the California Supreme Court judges about that time. The history of this development was later published, with a copy of the Act, in the *Journal of the California State Medical Society*.

Mr. Henry Taft, brother of President Taft, of the firm of Cadwallader & Taft, New York, became quite interested in the Act, and wrote me for a copy, as at that time he was moving to have similar legislation passed in the State of New York. California was the first state to pass such legislation, although it was undertaken without good results in many other states in the Union. Recently a bill has been framed to be presented for passage in New York, which is receiving favorable consideration.

It is quite impossible in this brief discussion to consider the many issues which came before us, most of which were discarded as impracticable. Weeks and months of conferences were held before the present form of Act 1871 was adopted. Then it had to be threshed out in the Committee on New Legislation for other protracted periods.

All this tedious and laborious effort is known only to those actively engaged in the long period of sixteen years, wherein these discussions took place. The gentlemen who have so well presented the history of this legislation could not be expected to consider the numberless forms the bill assumed before the succinct and practical text of the Act as passed was adopted.

We believed then and believe now that the Act governing the court's expert would not benefit by any addenda or amendment. We believe it is adequate to meet all requirements in the giving of an unbiased expert opinion whenever the aid of unprejudiced expert evidence is required.

The fact that it has not had a wider and more general employment in the courts in California is in no sense the fault of the Act, or the privilege it confers on the court; the fault lies entirely in the apathy of our judges in exercising their privilege.

Expert testimony has so long been descredited in our American courts, due largely to the incompetency of witnesses called to testify as experts, and to the persistence of the Bar in demanding that the expert they employ shall be favorable to their cause, that even with the Act in force, its practical application is constantly thwarted. I know of only one way we can improve this lamentable situation, and that is for the medical profession to definitely decline to appear in court to give expert testimony, except as the court's witness. For with this law in force the criticism that expert evidence is worthless and futile, so long charged by judges and lawyers, has quite lost its meaning in California.

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HUBERT T. MORROW, ESQ. (837 Van Nuys Building, Los Angeles).—The article by Doctors Barnard and Tucker on "Expert Medical Testimony in California Courts" leaves little to be said that would add any new thought. The writer, having been requested merely to discuss the article, will not assume to repeat any of the views expressed in that article or to bolster it with arguments supporting those advanced by the authors. It is quite patent to anyone with any experience of the subject that practically all of the observations of Doctors Barnard and Tucker are well founded.

The writer recalls the efforts over a period of many years by both the medical and legal professions to provide a statute that would correct the evils mentioned in the above article. Section 1871, Code of Civil Procedure, was the result of those efforts, and it represents the utmost then obtainable. That provision of the law has, in a general way, and to some extent, improved the situation, and in some particular cases it has operated to eliminate the evil of partisan expert medical testimony. However, I believe it is employed in a minority of cases, and even then generally where each side exercises its right under the statute to call its own experts.

The evils pointed out by the article under review could be wholly removed only by denying to any party the right to call his own experts, and by placing in the court's hands the power and duty of appointing qualified and disinterested expert witnesses who would be subject to cross-examination by each party to the litigation. Some such control of expert testimony would be in line with the thought and practice of some foreign jurisdictions, and is not an innovation in juridical thought. Centuries ago in England it was not uncommon for the courts to impanel a jury of matrons to advise the court concerning controverted facts involving pregnancy, and other illustrations might be given of early recognition of the value of independent expert testimony.

While the writer has on numerous occasions observed medical and other experts called by one party or the other, give most conscientious, fair, and honest opinions, such as they would have given if called by the court itself, nevertheless there are far too many instances where experts fall into a partisan attitude that makes them special pleaders for the side calling them. And, of course, in many cases one is confronted by the "professional," venal or incompetent expert witness, whose biased testimony often results in unjust determination of the issues.

The question which the expert is to answer is one upon which the court or jury requires guidance, because it is outside the ordinary experience of laymen. Necessarily the expert gives his opinion upon the subject, either from his own examination (stating the facts in that regard), or from an assumed state of facts recited to him in the form of an hypothetical question which, in turn, is based upon testimony as to facts pertinent to the case. The opinion of the expert should be fair, honest and unbiased, and he should be as far removed as possible from interest in the outcome, personal contact with either party or advocates of such party. Thus only can there be assured reasonable opportunity for fair and correct answer to the technical problem that confronts the court or jury, and which necessitates the calling of experts.

Some twenty-five years ago I had the pleasure of meeting that able man, George Franklin Shields, M. D., and had with him an evening's discussion of the problem in question. Some of the members of the medical profession will recall him. In the course of an address previously delivered by him on the subject of medical expert testimony, he said:

> But, gentlemen, expert medical evidence could be made of the greatest value in forwarding justice were it properly introduced. May I suggest two perfectly feasible plans: (1) Let the attorneys of each side select two experts, and

let the four thus chosen agree on a fifth. These five men could, after careful deliberation, bring in a full and useful report on any technical points placed before them. Or (2) leave the matter entirely in the hands of the court, who could call one or a dozen medical men to elucidate, with absolute freedom from bias, any technical points which might arise in a trial. I incline strongly to favor the court having the control, since it would entirely do away with the possibility of partisanship, provided always that the court is what it should be—learned, dignified, and absolutely impersonal. Under this rule the very best men in the ranks of the medical profession would always be ready and glad to give their services, instead of shunning the courts on account of the false position in which they are so frequently placed by the warring attorneys.

In the year 1870 one of the ablest Supreme Court justices of this State, Justice Jackson Temple, said, in deciding a case then before the Supreme Court (40 Cal. at p. 405):

These witnesses (experts) ought, perhaps, to be selected by the court, and should be impartial as well as learned and skillful. A contrary practice, however, is now probably too well established to allow the more salutary rule to be enforced, but it must be painfully evident to every practitioner that these witnesses are generally but adroit advocates of the theory upon which the party calling them relies, rather than impartial experts, upon whose superior judgment and learning the jury can safely rely. Even men of the highest character and integrity are apt to be prejudiced in favor of the party by whom they are employed.

The above excerpts indicate that the problem in this State has long been recognized by the professions and that there has been little change in the view that expert testimony should be removed from partisanship and elevated to the position where it really can assist in accomplishing justice to all parties.

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HARTLEY F. PEART, ESQ. (111 Sutter Street, San Francisco).—The paper entitled "Expert Medical Testimony in California Courts" concerns itself with a subject which is of great importance in the practical administration of justice in the trial courts of this state. While the paper is concerned with expert medical testimony only, the problems presented and the conclusions which are drawn are of great significance to many persons other than medical men. The paper may well be expected to provoke thought and discussion which will ultimately prove of benefit in the better administration of justice in this state.

The authors of the paper quite correctly illustrate the underlying defect in the method now used to introduce expert medical testimony before the trial courts of this state. Too often, under the practice in vogue, an expert witness cannot be considered as unbiased, impartial, and nonpartisan. While it is undoubtedly true that in a great many instances the expert witness is absolutely unbiased, impartial and nonpartisan, the fact remains that many experts who take the witness stand are not so considered by the jury, the judge or the attornys in the case. The expert is looked upon as an advocate striving to protect the best interests of the person by whom he is paid. The legal justification for allowing a person to give his opinion in any lawsuit is that such a witness is, by virtue of his knowledge and skill, in a position to draw conclusions and state opinions concerning matters about which the jury would have no special information. Thus, an expert witness should be considered as a friend of the court who is willing to use his special skill and knowledge that justice may be obtained. Since an expert witness is in the great majority of cases now considered to be partisan for the reasons pointed out in the paper under discussion, it is understandable why the opposing counsel must use all the learning and skill at his command to discredit the testimony of the witness. As a result, many highly qualified and desirable experts decline to take the witness stand and undergo the physical and mental strain which is involved in defending their opinions.

A question which is of importance to every doctor is whether he may refuse to appear and testify as an expert unless he is paid more than the statutory witness fee. This problem has never been squarely passed upon by the courts of this state. The problem was presented to the court in the case of

Webb vs. *Lewald Coal Co.*, 214 Cal. 182.

The court decided the case upon other grounds and stated:

The troublesome question as to when it is proper in litigation between private parties to compel an expert witness to give his professional opinion without consent or compensation, though discussed by counsel and by *amici curiae*, does not freely arise on this record. Hence, it will not be here considered.

What little authority there is in this country in regard to this problem seems to favor a ruling that an expert may not be compelled to testify as to matters of opinion without receiving extra compensation therefor.

The broad problems considered by Doctors Bernard and Tucker have been weighed at some length by many writers, both in the State of California and throughout the United States. Hon. Arthur L. Mundo, Judge of the Superior Court, San Diego County, in the May, 1935, issue of the "State Bar Journal," in discussing the problem, takes as his premise the fact that the procedure under which expert testimony is offered in the trial courts is in need of reform. His suggested cure for the evil is to repose the power of appointing experts exclusively in the courts, thus making the expert witness an officer of the court. In order to make this plan feasible, Judge Mundo suggests that a panel of expert medical men and women in each county be submitted to and finally approved by a majority of the judges of the trial court. The county medical societies would certify these experts. When it became necessary for an expert to aid the court, the names of the experts in the field of medicine involved would be placed in a sealed box and drawn in the same manner as jurors are drawn. The litigants would have only the right to disqualify the expert chosen upon properly showing prejudice, bias or interest. In civil suits the cost of securing such expert testimony would be taxed upon the litigants, as the court should determine proper. In criminal cases the charge would be against the county.

Judge Mundo's proposed plan has been criticized by several members of the bar of this state. In general these criticisms are that the best medical experts would not be placed upon the panel, and that such a plan would add to the cost of a lawsuit, thus preventing many plaintiffs from securing justice. (See "State Bar Journal," July, 1935, p. 183.)

The authors of the paper under discussion are among the few writers upon this subject who recognize that California has a statutory law which, if properly carried out, would go a long way toward correcting the abuses of the method now commonly used to introduce expert testimony. Section 1871 of the Code of Civil Procedure provides, in substance, that the judge of a trial court may on his own motion, or on the motion of any party, appoint one or more experts to investigate and testify relative to the matter or matters as to which such expert evidence will be required. It is also provided in this section that the litigants may produce their own expert witnesses, and it is further provided that the judge may limit the number of experts to be called by any party. It is quite clear that this law is an attempt to take a middle ground. While it has not proved as efficacious as it might, it seems to this writer that with coöperation on the part of the county medical societies, along the lines suggested by Judge Mundo, with the judges of each Superior Court, the evils of our present system, in so far as expert medical evidence is concerned, would in a large degree disappear. Since this proposal involves no change in statutory law or in the theory of the proper function of an expert witness, it would seem that the proposal should be entitled to a trial.

The conclusions reached by Doctors Barnard and Tucker show that much careful thought and consideration have been given to this very troublesome problem. As this problem is essentially practical and not merely academic, the paper under discussion is entitled to the serious consideration and discussion of the members of the medical and legal professions. It is only in this manner that we may obtain a necessary reform in the administration of justice.

THE THYMUS IN HEALTH AND DISEASE*

By Paul Michael, M.D.
Oakland

Discussion *by Francis Scott Smyth, M. D., San Francisco; Howard L. Eder, M. D., Santa Barbara.*

INCREASED attention to endocrin disorders in the last few years has stimulated our interest in the thymus. Experimental work on fish and mammals has, as yet, failed to establish the full significance of this gland's function. The scope of this paper includes an embryologic and physiologic discussion, with a report on the study of two hundred clinical case histories and their protocols.

EMBRYOLOGY

Although we know it originates from the ventral aspects of the third and fourth branchial clefts, the thymus anlage descends from the pharynx to lie in the lower neck and in the thorax over the base of the heart. Its origin establishes it as an epithelial organ, but the microscopic make-up is unmistakably lymphoid. Because of the embryologic association of the thymus and parathyroid glands, there is a certain structural and functional relationship: structural, in that parathyroid tissue may be found within the thymus; and functional in that both are associated in some way with calcium metabolism. The thymus is divided into two main parts—the neck thymus and the thoracic thymus. It has two lobes and is composed of cortex and medulla, all enveloped within a fibrous capsule. The adenoid tissue of the peripheral cortex is more closely packed than that in the medulla. The lobes are subdivided into lobules held together by an interlobular connective tissue. The smaller lobules, 5 to 10 millimeters in diameter, are further divided by septa into smaller compartments, each of which contains several secondary lobules. The secondary lobules are made up of many primary and secondary follicles resembling lymph follicles in structure.

Scattered through the gland are Hassall's corpuscles—large, round or ovoid bodies, which stain faintly and have irregularly concentric laminations. These bodies may have some endocrin importance, or may be products of degeneration; their origin and function, for the present, however, must still be left to conjecture. The blood vessels run in the interlobular connective tissue and give off branches which penetrate the follicles as a large capillary network. Accompanying this network is a very luxuriant lymphatic vascular tree.

FUNCTION

Research work on the function of the thymus gland is principally confined to animal experimentation. The history of the thymus problem is a laborious one, and will be summarized in brief.

Restelli,[1] in 1845, showed that the thymus was in some way connected with the rate of growth during early development. Friedleben,[2] in 1858, likewise showed the significance of the gland in osseous development and believed it also to be of hematopoietic importance. Basch,[3] in 1902, demonstrated again that the gland was concerned with growth and also the calcification of bone. Soli,[4] in 1910, showed that thymectomy in chickens resulted in the laying of eggs without shells. Hewer,[5] in 1914, continued the studies started by Basch and demonstrated the relationship of the thymus gland and calcium metabolism. Klose and Vogt,[6] in 1914, removed the thymus in young animals and claimed this resulted in adiposity and cachexia, accompanied by spontaneous fractures. The painstaking work of Park and McClure,[7] in 1919, set forth in their monograph on the thymus gland, threw the entire subject into turmoil by questioning most of the experimental work done up to that time. They felt that the thymus had little influence on the growth of the body or alteration of the hair and teeth. They admitted that there may be some slight retardation in development because of delayed calcification. The period 1919 to 1931 was the golden era of romance for the thymus gland. Numerous obscure conditions were credited to the thymus, and all unusual deaths were accounted for on this basis. Young and Turnbull,[8] in 1931, attempted to refute this entire theory, and claimed that the thymus was in no way associated with sudden death. Although unable to explain the method, most American observers believe that status thymicolymphaticus is a condition *sui generis,* and not infrequently associated with otherwise unexplained fatalities.

Some of the most significant animal experimentation work has recently come from the Philadelphia Institute for Medical Research. Rowntree[9] and associates, using an acid aqueous extract of the neck thymus of young calves called karkinolysin (Hanson,[10] 0.6 gram of raw thymus per cubic centimeter), experimented on white rats obtained from the Wistar Institute. These rats were injected intraperitoneally daily for six months. In the first generation the animals were heavier, bred more frequently, and had larger litters of heavier rats. No definite changes occurred in the second generation in the first six litters, but in the seventh to the eleventh litters evidence of precocity occurred. In the third to the seventh generation, acceleration in the rate of growth and precocity were marked, and increased with each succeeding generation. Rowntree[9] reported certain chemical changes which occurred in these animals. Thymus-treated rats, from the second to the fourth generation, showed an increase in serum calcium, ranging from 11.4 to 13.3 milligrams per cent, with an average of 12.3; and the inorganic phosphorus ranging from 4 to 7.5 milligrams per cent with an average of 6.1. The controls showed a serum calcium from 9 to 11 and the phosphorus from 3 to 4 milligrams per cent. There was no deviation in the blood count. X-ray studies showed increase in the size of the bones, with earlier appearance and calcification of the ossification centers. Thymus extract in small doses showed no reaction on the heart, but large amounts resulted in shock, fall

* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25 to 28, 1936.

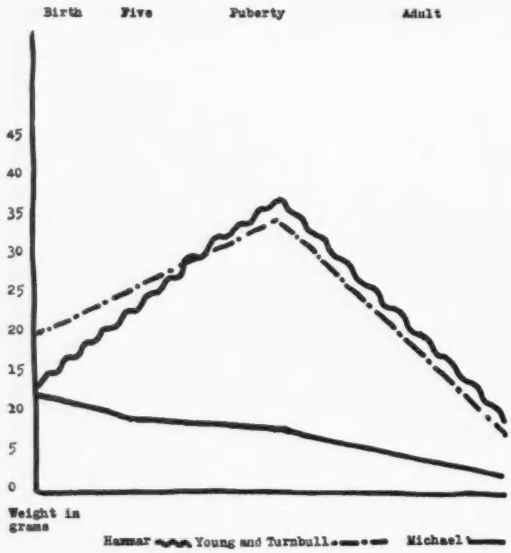

Chart 1.—Comparative weights of thymus

in blood pressure, and auriculoventricular heart-block. All these results were obtained by using the old thymus extract prepared by Hanson in 1930. Fresh extracts showed very little stimulation, and oral administration was ineffective.

CLINICAL APPLICATION

The clinical conception of this problem is even more confused than the experimental. The unfortunate weakness is that most experimental findings are not borne out in their clinical application. It is natural, then, that much incorrect pathologic significance has been given to the thymus gland, partly because we have failed to establish the normal. It appears that the thymus is enlarged in Graves's disease, Addison's disease, acromegaly, status lymphaticus, sometimes in rickets, asthma,[11] and most often in myesthenia gravis. The thymus may be enlarged in eunuchs, and its involution is delayed in early castrates. It normally involutes after puberty, probably inversely as the development of the reproductive organs takes place. It was thought by the older writers to diminish in size in starvation, inanition, and general wasting diseases, and to enlarge in certain acute diseases in children or young adults.

MATERIAL FOR THIS STUDY

It was upon these last questionable tenets that work was originally instituted as to qualitative and quantitative changes in the thymus gland, and the development of a normal weight curve. The glands were completely removed, weighed, studied grossly and microscopically, and correlated with the clinical findings. Six cases of lymphoblastoma and eight cases of apparent status thymicolymphaticus were eliminated from the study, some of these latter having been reported in a previous communication.[12] The study includes two hundred cases, of which one hundred were children under fifteen years. Friedleben,[2] Kasarinow,[13] Von Sury,[14] Hammar,[15] Ronconi,[16] Klose,[17] Bratton,[18] Scammon,[19] and Boyd,[20] all agree as to the average birth weight—9 to 14 grams. The majority of the investigators reported much higher puberty rise and prepuberty rise than my series, while Young and Turnbull [8] and Hammar [15] reported weights in adults far in excess of those seen in the present series.

Time does not permit a complete correlation of the clinical and autopsy protocols established in these two hundred cases. A summary of the findings, however, includes the following points: The average birth weight was 12 grams. There was then a steady decline to the age of five years, when the average weight was 10 grams. From then on to puberty the decline was more gradual, with the average weight being at this time 9 grams, establishing almost a continuous horizontal line. From puberty on to adult life, however, there was another drop. The average weight in adults was 2.5 grams. The thymus in males, on the average, was slightly heavier than that in females, although the difference was not always appreciable. There was no correlation between acute infectious diseases and enlarged thymus. It appeared that the enlarged thymus in certain diseases, such as diphtheria, fulminating septicemia, etc., was part of an inherent constitutional state of the individual, contributing to the disease rather than the result of it, indicating a low resistance or lack of immunity. Evidence favored the fact that an enlarged thymus gland was probably a primary enlargement rather than a secondary one, resulting from toxemia. As acute, subacute, and prolonged wasting diseases were included in this study, no definite correlation was seen between the latter conditions and atrophic thymus. As a matter of fact, this group conformed to the normal established by the series. There is no satisfactory explanation forthcoming accounting for the discrepancy between my figures and those reported in other series. Complete extirpation was done and accurate weighing was maintained throughout.

No study of the thymus gland is complete without at least mentioning the condition called lymphatism, or status thymicolymphaticus. Probably one of the most controversial, certainly one of the least understood, it remains one of the most frequently mentioned conditions. Lymphatism is a state in childhood, or occasionally in adults, when lymphoid tissue, normally present in but small amounts, is found to be flourishing and luxuriant. Not only is the thymus itself larger than normal, but the lymphatic tissue generally is hyperplastic—especially in the lymphoid follicles in the mesentery and along the gastro-intestinal tract. The body may be characteristically thin and undeveloped, or may show an unhealthy, pale, flabby overgrowth. There is usually a small heart, small blood vessels, frequently with defective walls, and hypoplasia of the adrenals. There may be a marked allergic tendency [11] or some exudative diathesis. Unexplained death even from trivial causes may occur, and attempts at explanation may bring to

mind the possibility of an exudative diathesis, an overwhelming toxemia from excessive lymphoid breakdown [21] or fatal heart-block from excessive calcemia.[9]

SUMMARY AND CONCLUSIONS

1. The thymus gland is reviewed embryologically, physiologically, experimentally, and clinically.

2. A brief review of the literature is included.

3. Two hundred case histories are summarized in which the thymus was studied. Birth weights agreed with those reported by other observers, but puberty weights and adult weights were much less than those generally given. There was no definite relationship existing between enlargement of the thymus and infection, or atrophy of the thymus and wasting diseases.

4. A résumé of status thymicolymphaticus is given, and the claim that it is a condition *sui generis* sustained.

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DISCUSSION

FRANCIS SCOTT SMYTH, M. D. (University of California Hospital, San Francisco).—The subject of Dr. Michael's paper is one which will precipitate considerable argument in any medical group. The older orthodox viewpoint, that the thymus enlargement is in itself responsible for certain sudden deaths, has been in some instances a smoke screen to hide our ignorance. In the first place, postmortem examinations of sudden deaths in healthy children before puberty should show normal healthy tissues in contrast with those examinations after wasting illnesses. While Doctor Michael's study shows that thymus hypertrophy is still independent of such conditions, the studies of Boyd would tend to show a distinct difference in the thymus of a healthy child and that of a sick one.

A number of years ago Dr. O. M. Schloss had his house staff correlate x-ray diagnosis and pathologic measurements of the thymus. While our series was small, we were convinced that there was frequently a false interpretation of x-rays, as judged by the actual size of the thymus.

More recently Waldbott and others have collected evidence which strongly suggests that anaphylactic-like episodes may be concerned with some of the instances reported as thymic deaths.

It is well, then, not to overlook other causes, such as cocain shock, anaphylaxis, etc. On the other hand, despite the discrepancy between the x-ray and the postmortem findings, it is probably safer to resort to x-ray therapy, when careful x-ray suggests thymic enlargement, than to philosophize on the inadequacies of medical methods.

Unquestionably, from studies such as Rowntree is making, we will find the nature and place of the thymic hormone in the present maze of endocrines. Mention should be made of the clinical observation of symptoms similar to thyrotoxicosis apparently associated with thymic hyperplasia and responding to thymic extirpation. Mention should also be made of the frequency with which aberrant parathyroid tissue may be found in the thymus gland.

*

HOWARD L. EDER, M. D. (1421 State Street, Santa Barbara).—Doctor Michael has given us a very complete, interesting and illuminating article on the thymus gland. Many articles relating to this rather small gland published during the past twenty years have caused considerable confusion in the minds of not only the doctors, but also the lay public. Recent articles have helped to straighten out some of the confusion in the minds of the doctors. No doubt, in the near future we will know enough about this small gland and other ductless glands to aid us materially in the diagnosis and treatment of certain diseases.

I am sure that in pediatrics a syndrome complex is encountered which, whether it is caused by the thymus gland or not, at least responds to x-ray therapy over that region. These cases present a rather typical picture, consisting usually of vomiting, sinking spells with cyanosis, colic, and irritability. These babies cause great concern to the mothers, and when undiagnosed do very poorly. During an attack the simplest procedure is to hold the baby head-down until the cyanosis disappears.

The x-ray picture generally shows an enlargement of the thymus gland, not only in breadth but also in unusual thickness. Auscultation in this region will usually give diminished heart sounds and there is a dullness on percussion. X-ray therapy has always relieved the symptoms of this peculiar condition in the cases I have observed.

The lay public is very much concerned about the enlargement of the thymus. Parents frequently ask to have a new-born baby x-rayed for possible enlargement of the thymus. They also ask frequently to have the thymus x-rayed before an anesthetic, particularly for the removal of tonsils.

So many articles have been published on status thymicolymphaticus in the past that it is impossible to convince patients that this condition is probably coincidental with sudden deaths. It will take a long time to convince the public that the thymus is of great importance in growth and development, but probably plays little part in disease.

MISSED ABORTION*

By J. Morris Slemons, M.D.
Los Angeles

Discussion *by C. Frederic Fluhmann, M. D., San Francisco; Frank W. Lynch, M. D., San Francisco; Norman H. Williams, M. D., Los Angeles.*

THE belief has become traditional that a vigorous reaction on the part of the uterus will promptly expel the product of conception whenever the fetus dies. As a rule, it happens so; and yet an interval of six weeks often passes before the abortion occurs. Should the delay be longer—several months, rarely a year or more—many vexing questions will arise; some theoretical, others quite practical in their implications. At times the interwoven medical and social features assume a legal aspect, and may provoke a lawsuit. The best known illustration of this contingency relates to a distinguished British gynecologist, a generation ago, who failed to consider all the possibilities in the case of a prominent London woman whose husband had been absent in India a year when she aborted a disintegrating ovum which presented an early stage of development. That the husband could not be responsible for the pregnancy was the opinion the gynecologist expressed; and in the courts he lost a suit brought against him for defamation of character. In fact, the prolonged retention of a dead embryo created this embarrassing domestic situation. Missed abortion was the correct diagnosis.

FREQUENCY

Missed abortion of impressive duration was once thought to be an extraordinary complication. Now, we know, it occurs much more often than intimated by the report of E. Fraenkel,[1] in 1903, who was able to collect only 105 cases, including his own. Current textbooks reflecting the personal experience of their authors agree that its incidence has been underestimated. Thus, Taussig,[2] in a comprehensive monograph just published, says that one-tenth of all the abortions in his own practice were retained a sufficient length of time to permit classification as "the missed" variety.

This complication is treated somewhat more frequently in private practice than in institutions which serve the poor. Malnutrition, fatigue, jolts and jars, hard work of all kinds, favor abortion whether the fetus is alive or dead. Among the well-to-do, on the other hand, when premonitory symptoms develop, treatment becomes insistent and often succeeds in abating a stimulus that otherwise would set in motion the expulsive muscular mechanism. The elimination of exercise, enforced rest to the point of keeping a patient in bed, and the abundant administration of sedatives, all assist toward defeating nature in her purpose to rid the woman of a fruitless pregnancy. And so, paradoxically, modern precautionary measures which safeguard the prospective mother increase the incidence of missed abortion.

* Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-fifth annual session, Coronado, May 25-28, 1936.

REPORT OF CASES

Case 1.—Age, 23. Gravida 1. Last menstrual period began September 13, 1930. Normal progress for four months: never felt fetal movements. January 5, 1931, fundus nine centimeters above symphysis. January 14, abdominal pain of moderate intensity, one day; no bleeding. January 21, uterus the same size as one month ago. February 18, uterus smaller than at last visit and cannot be felt abdominally; on vaginal examination, found a retroverted uterus about the size characteristic at third month of pregnancy. General health excellent. When told of possibility of missed abortion, the patient insisted nothing was wrong.

Operation.—February 27. Dilatation of cervix and removal of ovum with placental forceps; curettement.

Pathologic Report.—Fragments of placenta. Fetus nine centimeters long; tissues dry and tough (mummification). Microscopic study shows shrunken chorionic villi. Endometrium regenerating: stroma cells small, glands resemble those of nonpregnant uterus rather than of decidua. Estimated retention period of dead fetus was three months.

* * *

Case 2.—Age, 43. Gravida 10. Eight living children; miscarriage at three months in 1922. L. M. P., January 5, 1927. Mild attack of influenza in February. X-ray treatments for pruritus vulvae during March and April. Slight vaginal bleeding for two days early in May and again on May 26; no cramps or backache. On June 11 she arrived in Los Angeles after a transcontinental railway journey, and shortly after reaching the hotel she noticed vaginal bleeding. The husband, a physician, thought pregnancy out of the question. The uterus, asymmetrically enlarged, corresponded in size with the third month of gestation. A round mass within the uterus at the right cornu, four centimeters in diameter, was interpreted as a myoma.

Operation.—June 14. Dilatation of cervix; digital exploration of uterine cavity. The mass just mentioned proved to be an hematoma mole. Contents of the uterus removed with placenta forceps; cavity packed with gauze. Bleeding scant until pack was removed after being in place twenty-four hours. Subsequently, excessive lochia for ten days, when uterine cavity was explored and no placental fragments found. At husband's request, radiation was employed and bleeding ceased. Recovery.

Pathologic Report.—Placenta penetrated by and covered with old blood-clots (Breus mole). In the center of the mass was a macerated embryo 3.5 centimeters long. Estimated retention period was four months.

* * *

Case 3.—Age, 35. Gravida 2. One living child delivered by low forceps on account of maternal toxemia (albuminuria). L. M. P., February 16, 1931. No ailments in early months. June 12, fundus eight centimeters above symphysis. July 13, no quickening; uterus the same size as a month ago; slight cramps and "spotting." On August 13 the hormonal urine test (Friedman) was negative.

Operation.—August 15. Dilatation of cervix and removal of uterine contents with placental forceps.

Pathologic Report.—Fetal sac intact, containing macerated embryo nine centimeters long. Estimated retention period was three months.

* * *

Case 4.—Age, 32. Gravida 3.—Two illegal abortions. L. M. P., May 15, 1930. When first seen, July 20, the uterus was enlarged and soft, but could not be outlined clearly on account of chronic inflammatory adnexal disease. The hormonal urine test (Friedman) was negative. July 31, severe abdominal cramps and moderate uterine bleeding.

Operation.—July 31. Dilatation of cervix; removal of uterine contents with placental forceps.

Pathologic Report.—Fetal sac intact, containing an amorphous lenticular mass, the embryo, one centimeter long, five millimeters thick. Estimated retention period was six weeks.

CASE 5.—Age, 23. Gravida 1. L. M. P., July 15, 1932. Her physician, consulted September 28, made a diagnosis of pregnancy. Quickening was never felt. No ailments. On February 3, 1933, as the abdomen failed to enlarge, the physician doubted the correctness of his primary diagnosis and was confused, especially by a negative hormonal urine test (Aschheim-Zondek). Then I saw the patient in consultation, and found the uterus approximately twice normal size: otherwise nothing noteworthy. Suspecting a missed abortion, dilatation and curettement were recommended. This was done by her physician, who reported the removal of placental tissue. Estimated retention period was six months.

CLASSIFICATION

How long must the dead fetus be retained before the diagnosis of missed abortion is warranted? Heretofore, attempts at definition, somewhat arbitrarily, were based upon a comparison of the developmental age of the embryo with the menstrual age of the pregnancy. Guided in that way, clinicians regarded a retention period of six weeks as requisite to correct classification. All the cases of this series fulfill that requirement: an interval of from six weeks to six months elapsed between the death of the fetus and the termination of pregnancy by instrumental means.

In the past no reasonable objection could be raised against the "time criterion"; but now, having at hand the hormonal urine test, it seems preferable to differentiate cases on that basis. In other words, the diagnosis of missed abortion, in my judgment, should be made only after the Aschheim-Zondek or Friedman reaction has become negative. Of course, it does not become so immediately after the fetus dies. As long as vitalized placental tissue remains, the test will be positive; until it becomes negative we must consider the possibility that the uterus will empty itself spontaneously. This suggestion, however, applies merely to the first half of pregnancy, the period corresponding with the accepted use of the term "abortion"; nearer term, Wilson and Corner [3] find that a positive hormonal urine reaction persists far too long after fetal death to serve the practical purposes of diagnosis and treatment.

The hormonal urine test was negative in three of my cases. Although not employed in the other two, they were correctly classified; the uterus of one of them contained a hematoma mole, the other a mummified fetus.

CLINICAL MANIFESTATIONS

In contrast with the frank, troublesome manifestations of most bodily derangements, the maternal symptoms of fetal death are conspicuous for their negative character. Breast engorgement vanishes, nausea and vomiting cease. A good appetite replaces a distaste for food. The tendency to lose weight is arrested; often the patient begins to gain, gradually and moderately. Relieved of the distinctive ailments of the early months, the prospective mother assumes everything is going as it should.

Invalidism in these cases, which impressed Litzenberg,[4] must be extraordinary. None of my patients complained of a foul taste, an offensive leukorrhea, chilly feelings, or malaise; neither were they profoundly anemic, feverish in the afternoon, or mentally disturbed. That infection seldom occurs is a remarkable fact, probably explained by organic readjustment to the changed embryologic situation. The muscular wall of the uterus becomes firmly retracted, its blood vessels undergo alterations which narrow the lumen and the endometrium begins to regenerate. None the less, precaution must be unremitting against the introduction of contaminating material; vaginal examinations, limited in number, will be made with strict aseptic technique and the marital relation forbidden.

A pregnant uterus of stationary or diminishing size provides the most significant clinical evidence of fetal death. At first the patient fails to notice that her abdomen is not growing larger; and, if she has not yet reached the time for quickening, this sign, or its absence, cannot be utilized. On clinical grounds the physician forms an opinion, beyond cavil, only after reëxamination of the patient at the end of a month. Meanwhile, if the laboratory reports a negative hormonal urine reaction, the debate is closed.

As a rule, very slight symptoms of threatened abortion follow directly upon fetal death, symptoms often insignificant to a patient accustomed to much more severe cramps with menstruation and indifferent to a faint discharge of blood. Should she communicate with her physician, he will recommend sedatives and continuous rest in bed. Typically these measures soon afford relief, and she resumes her customary routine for a longer or shorter interval until outspoken signs of abortion appear, or clear proof of fetal death warrants surgical treatment.

Neglected cases, women who first seek medical advice long after the fetus has perished, formerly presented great diagnostic difficulties. It was not easy to decide whether or not the uterus contained a pregnancy; and, if so, was the embryo alive? In these circumstances modern methods become most helpful, especially the hormonal urine test. A positive result impels delay; a negative one at least permits active treatment without the hazard of ending a pregnancy unwittingly. Even today, however, the differentiation of missed abortion and myoma can be perplexing, as I once had occasion to learn. Upon arrival from the East the patient began to bleed shortly after reaching a hotel and was brought to the hospital by her husband, a physician, who thought pregnancy out of the question. The history and the pelvic examination were in harmony with the diagnosis of myoma, but at operation a hematoma mole was found.

Clinical study seldom, if ever, discloses the cause for retention of the fetus. Consequently, in the case just mentioned it is noteworthy that repeated radiation had been used for the treatment of pruritus vulvae. In another case pelvic inflammatory disease had persisted since a former pregnancy was aborted illegally. There the chronic pathologic lesions, which included metritis, are suspected as responsible for uterine inertia. Isolated cases, to be sure, even correctly interpreted,

fail to indicate the broad principles which underlie prolonged retention of the fetus. For these we must look further.

PATHOLOGY

Anatomic research has taught a great deal with respect to the structural changes which precede and accompany the immature arrest of embryologic development. With a rich material, contributed by midwives as well as physicians, Mall [5] demonstrated in abortions that the primary defect of the gestational organization centers around the nutrition of the embryo, and that it dies before the placenta loses its vitality. Primarily, the maternal tissues are often at fault, but not always; the protoplasm of the embryo may be defective. Less intense grades of malnutrition, not severe enough to cause death, interfere with perfect embryonic development. These focal imperfections, in particular intra-uterine amputations, have been studied by Streeter.[6]

When the embryo dies, it becomes a foreign body—a permissible description for want of more exact information—and nature endeavors to cast it off. To this rule there are a few exceptions. A. W. Meyer [7] found that resorption of a conceptus occurs in women just as in multiparous mammals. He learned, too, that the embryo vanishes before the structures which protect it. This eventuality, of course, will be impossible unless development has ceased at an extremely early stage. Later the bulk and composition of the ovum prevent complete dissolution and absorption; it must then be removed by way of the birth canal. Presumably the uterus always tries to accomplish that result and occasionally fails because its contractions are either too infrequent or too weak.

Seeking the underlying cause of uterine inertia, it is not difficult to choose the path to follow. Let us see what help has already been had from endocrinal research. Of this there have been two pertinent varieties: one relates to the corpus luteum hormone, progesterone; the other to estrin, a hormone of great importance in fitting the uterus for parturition.

HORMONAL CONTROL

Snyder [8] demonstrated in the case of rabbits that the intravenous injection of urine from a pregnant woman postponed the birth of their young, and he attributed their retention in the uterus to the action of hormones. His conclusions were based upon a brilliantly conducted research the steps of which may be very briefly recapitulated. A small amount of chorionic gonadotrophic (anterior-pituitary-like) hormone thrown into the maternal circulation induced spurious ovulation, although the rabbits were already pregnant. The ovarian follicles which responded to this stimulus underwent the customary transformation into corpora lutea. Accordingly, parturition did not occur upon the ordinary date (thirty-two days postcoitus), but was deferred until the induced corpora completed their life cycle, postponing the delivery until the fortieth day, and prolonging pregnancy by a period 25 per cent of its usual duration. Specifically, the delay was due to the artificial production of corpora lutea and the consequent influence of their hormone. Snyder argues convincingly that the rabbit's uterine musculature remains quiescent during pregnancy in response to progesterone. Does the same reasoning apply to women? Probably so. At least this inference has the support of collateral evidence from other sources.

In 1903, L. Fraenkel [9] observed that women aborted when the corpus luteum was ablated in early pregnancy, or the ovary containing it removed. In other words, as it now appears, the depletion of progesterone permits the establishment of efficient uterine contractions. More recently, Corner and Allen [10] have shown that the corpus luteum functions in this way, among others. Clinical application of their work, reported by Falls, Lackner, and Krohn,[11] emphasizes the inhibitory effect of progesterone upon cases of habitual and threatened abortion.

It is significant, as Streeter remarks, that the expulsion of a conceptus is retarded conspicuously when fetal death occurs between the sixth and the seventeenth week of development. At this period the corpus luteum is relatively large; the placenta small; the amniotic fluid less abundant than later. Each of these environmental factors must be taken into account before the explanation for missed abortion becomes full and final: the corpus luteum because it produces progesterone, the fetal sac because its estrin content continues to be comparatively poor, while the bulk of the pregnancy remains small.

Estrin (also called female-sex hormone, theelin, progynon, folliculin, and by still other names) occurs not only in the fluid of the ovarian follicle, but also in the placenta, fetal membranes, and amniotic fluid. Unquestionably, it participates in the preparation of the uterus for the act of labor; but its sphere of influence has not been definitely ascertained. Some writers believe it sensitizes the muscle and nerve elements of this organ. Furthermore, Robinson and his coworkers [12] assume hypothetically that estrin stimulates the posterior lobe of the pituitary to elaborate the characteristic hormone, distinguished for its ecbolic properties.

If the pregnancy is normal the administration of estrin to women never causes abortion, according to Robinson, Datnow, and Jeffcoate; on the other hand these authors found the same treatment effective whenever a dead fetus was retained. Among twelve cases of missed abortion given massive doses of estrin, only two failed persistently to react, three responded following additional medication, the remaining seven expelled the contents of the uterus spontaneously, "after an interval up to seven or eight days." Parenthetically, estrin had no effect upon several patients with incomplete abortion and one with hydatid mole.

Such results will inspire further trial of this therapeutic agent, especially since Spielman, Goldberger, and Frank [13] reported several years ago that estrin disappears from the mother's blood after death of the fetus. During normal pregnancy its presence in the blood has long been recog-

nized, and its abundance in the urine was recently reaffirmed by Cohen, Marrian, and Watson,[14] who add: "the hormone first presents itself in an adynamic form, as estrone and estriol, in combination with glucuronic acid." At the approach of labor the bond is broken, liberating a potent form of estrin. Ultimately the functions of this endocrine secretion will be defined more clearly. At present it appears that during normal pregnancy two hormones, progesterone and estrin, hostile to each other in some respects, are equilibrated; preliminary to labor the latter gains the upper hand. Conversely, the inertia responsible for the prolonged retention of a dead fetus is probably associated with a deficiency of estrin and a surplus of progesterone.

TREATMENT

Radical treatment of missed abortion, either medical or surgical, must inevitably await proof of the death of the fetus. Subsequent delay will be governed largely by the patient's attitude, a permissible concession, for procrastination rarely leads to complications. Nevertheless, with the diagnosis established, the physician should recommend active treatment since the removal of the derelict pregnancy alone will restore the normal functions of the reproductive organs.

In due time the therapeutic merits of estrin will be fully ascertained. At present commercial preparations of the hormone are expensive and the correct dosage has not been announced. On theoretical grounds it was predicted that pituitrin would act weakly during the early months of pregnancy because of the antagonism of progesterone. So it does. Induction by means of bougies contributes infection too often and, besides, it frequently provokes bleeding. Therefore, when therapeutic abortion has been agreed upon, the logical choice of treatment today is surgical. If the attending physician in all conscience feels the need of assistance, there will be ample time to make such arrangements as best assure a satisfactory end-result.

In general the operation consists of dilating the cervix, loosening with a finger the retained material and removing it by the use of blunt forceps. A sharp instrument, a curette, may perforate the uterus. At times vaginal hysterotomy becomes the preferable operation. Irrespective of the type of procedure selected, preliminary preparations for packing the uterus are imperative to obviate postpartum hemorrhage.

As a rule the convalescence will be smooth, but in one case of this series, that of hematoma mole, excessive bleeding continued for days after removal of the pack. It ceased following radiation, employed at the request of the husband, a physician; sterility ensued. Likewise, the woman with chronic pelvic inflammatory disease has not become pregnant again. The remaining three patients have borne children subsequent to their experience of missed abortion. Finally, it should be noted that a few, very few, cases of repeated missed abortion have been recorded in medical literature.

SUMMARY

No longer a rare complication, missed abortion has had relatively slight comment in medical literature because until recently very little was known about the cause of the underlying uterine inertia when a dead fetus is retained. Negative clinical manifestations and relief from the common ailments of the early months of pregnancy mislead patients to believe that all is going well. Sound diagnosis will supplement the observation of arrested uterine growth with proof that the hormonal urine reaction has ceased to be positive. Anatomical studies reveal that the fetus dies before the placenta loses its vitality. Endocrinal research indicates a deficiency of estrin, a surplus of progesterone; a situation harmonious with persistent uterine inertia. In general treatment remains surgical, since drugs are almost always inert and hormonal therapy has not as yet been accurately defined. At operation two hazards must be kept in mind, perforation of the uterus and profuse hemorrhage.

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DISCUSSION

C. Frederic Fluhmann, M. D. (Stanford University Hospitals, San Francisco).—The condition of "missed abortion" is not only of considerable importance from a clinical standpoint, but it presents certain problems which are inevitably associated with the cause of the onset of

labor. As Doctor Slemons points out, modern investigators have sought to explain this phenomenon on an endocrinologic basis, and three main factors have been considered: (1) progestin, a specific product of the corpus luteum, which inhibits uterine motility; (2) estrin, which sensitizes the smooth muscle of the uterus so that it responds more readily to the oxytocic action of (3) the posterior pituitary principle. On the basis of animal experimentation, it has been possible to expound a number of theories; but it must be remembered that the problem in the human is complicated by the appearance of a new hormone which is not found in nonpregnant individuals nor under any conditions in ordinary laboratory animals. This substance, the "chorionic gonadotropic hormone," is present in large quantities in women during gestation, and its exact rôle in the physiology of pregnancy has not been determined. Although our attention is necessarily directed to an endocrinologic disorder as possibly responsible for the prolonged retention of a dead fetus and placenta in the uterus, one cannot escape the consideration of a disturbance in the uterus itself as a potential factor.

There is nothing to add to Doctor Slemons' discussion of the clinical manifestations, diagnosis, and treatment of missed abortion. On the Lane obstetric and gynecologic services, only eleven cases have been indexed under this diagnosis over a period of twenty years. I do feel, however, that the condition is more common than these figures and those quoted by most authors indicate, and we are very grateful to Doctor Slemons for bringing this subject to our attention.

FRANK W. LYNCH, M. D. (University of California Medical School, San Francisco).—Doctor Slemons presents a thorough review of this rare condition and illustrates nearly all of its phases with cases from his own practice. His arguments are so convincing that there is very little that a discusser can say. As Doctor Slemons states, the complication in the past was shrouded with mysticism. Indeed, at one time it was believed that when the woman passed by the threatened abortion and did not extrude the contents of pregnancy, she in all likelihood would not abort until her expected date at term.

Before the discovery of the hormonal reactions of pregnancy, the diagnosis of the death of an early pregnancy was always a most difficult matter. Time in the final analysis gave the diagnosis; yet, when the patient was sick and when it did not seem reasonable to delay treatment more than absolutely necessary, confusion often reigned. It would not seem possible that there might be doubt as to whether the uterus had or had not increased in size from the third to the fourth month, yet very often there is such doubt. When Chadwick's sign had been present and disappeared, there was more than presumptive evidence that something was wrong. Yet Chadwick's sign very often does not appear until the last months of pregnancy. Even the blue discoloration along the middle of the anterior vaginal wall, extending to and about the anterior cervical lip, may be wanting. Yet, when you inspect the vagina of a woman with a missed abortion of six weeks to two months' standing, you will find it bears but little resemblance to the ordinary uterus of a four or five months' pregnancy.

The symptomatology is very interesting. Many women, but not all, develop malaise and symptoms that suggest protoplasmic poisoning. I have often wondered how many times I have been responsible for symptoms when I introduced doubt into the mind of some of my patients that the pregnancy was not developing. Certain it is that few of my patients were happy or contented while I was watching for definite proof that the case was a missed abortion. It is of interest, also, that the animal that has a missed abortion and absorbs the products of conception seldom, if ever, again becomes pregnant.

NORMAN H. WILLIAMS, M.D. (1052 West Sixth Street, Los Angeles).—The subject of missed abortion is appropriate to a program of this kind; it is too seldom discussed. Medical literature relating to it is surprisingly scant. One who supervises obstetrical patients observes the occasional case, but Taussig's estimate of missed abortions as 10 per cent of all abortions seems high. Presumably the variable incidence, as stated by various observers, results from the present loose definition. Certainly, a definition dependent upon the time elapsing between the death of the fetus and its expulsion, or removal, from the uterus is uncertain; although this may be an aid to diagnosis. A definition based upon a negative biologic test for pregnancy seems more logical.

As Doctor Slemons suggests, the probable cause of the inertia lies in the unbalanced hormone production, the stimulus to uterine contractions thus being diminished. In all probability, cases will now be observed more carefully as experimental hormonal study becomes better standardized, and its clinical application made more certain.

In the event of missed abortion quite as much tact and judgment are required in handling the mental attitude of the patient and family, as in the treatment of the obstetrical complication. Carelessness there frequently leads to misunderstanding between the patient and her physician. One plausible reason for dissatisfaction lies in the fact that accurate diagnosis must necessarily be delayed; another relates to the infrequency of missed abortion. The laity is not familiar with such a possibility.

It is sound practice to empty the uterus as soon as the diagnosis is made. Procrastination may lead to embarrassment. In one instance, to my knowledge, missed abortion terminated on a ballroom floor.

THE LURE OF MEDICAL HISTORY†

A RARE BOOK*

REVIEW OF ONE OF THE VOLUMES IN THE GROWING COLLECTION IN THE LIBRARY OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION: FRIAR BARTHOLOMEW'S ENCYCLOPEDIA, BEST SELLER OF THE MIDDLE AGES

By HYMAN MILLER, M.D.
Los Angeles

"BARTHOLOMAEUS ANGLICUS' *De Proprietatibus Rerum,* 1491." So reads the prosaic index card, but far from prosaic is the story behind this card.

Some time between the years 1200 and 1240 A. D., Bartholomew the Englishman, monk of the Franciscan Order, set himself to the task of writing a comprehensive encyclopedia of contemporary lore. Thus was a medieval best-seller born. Busy pens—for this was before the day of the printing press—turned out copy after copy in Latin, Italian, French, Provencal, English, and Spanish. *De Proprietatibus Rerum* (On the Properties of Things)—for such was the name of this book—must have had great popular appeal, for only so can we explain its many translations into vernacular in a world where Latin was the language only of scholars. And only so can we explain the flood of editions which poured forth once 1440 had arrived and Gutenberg had invented printing and the necessary press.

The first printed edition, a Latin one, appeared at Basel about 1470, and by the beginning of the sixteenth century the presses had poured forth nine more Latin, five French, one Dutch, one English, and two Spanish editions. Thus from

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* Reprinted from the Bulletin of the Los Angeles County Medical Association.

1470 to 1501, in the first half-century of printing, Bartholomew was represented nineteen times. Not a great number in the 28,000 editions of Incunabula or Cradle Books, but sufficient to entitle him to a place as one of the most popular writers of his time. Nor did his popularity then wane, for by 1582 fifteen more editions of the *De Proprietatibus* had appeared, making, all told, thirty-four printed editions over a period of three centuries, certainly a best-seller, outshining even our modern best-sellers. Incidentally, the last complete edition, an English one, appeared as late as 1907, and as recently as 1933 the *De Proprietatibus* was the subject of a long essay in one of our contemporary journals.

When Doctor Vollbehr, best remembered as the man who amazingly sold the United States Government a million dollars' worth of Incunabula, came to Los Angeles, he was visited by Doctors Dock and Belt and the librarian to see his collection, with the result that the monk, Bartholomew, is now represented on the shelves of our library by a copy of his *De Proprietatibus Rerum,* printed in 1491, and containing Doctor Vollbehr's bookplate of his *Inkunabel-Sammlung.* This Incunabulum takes its place alongside the only other in our library, the *Divinarum Institutionum,* by Lactantius, presented by our friend of San Francisco, Dr. Chauncey Leake.

To bibliophiles, the presence of these books gives a sense of completeness heretofore lacking in our library. To explain this would mean a discussion of the significance of Incunabula in the history of books and all that the word "books" implies. It will suffice to briefly outline what thoughts our copy of the *De Proprietatibus* arouses on being lifted from its protective casing. Despite the suggestion of fragility which this casing and the knowledge of its 446 years of age bring forth, it is a good, sturdy, substantial book, as it had to be when it was loaned out to medical students for a set fee, as was done in the medieval precursors of our modern lending libraries. The binding is of vellum, an ancient Latin leaf from some ecclesiastical manuscript, covered with carefully formed characters and decorated initial letters in still brilliant blue and red. On opening the book there is no title page; instead, on the last leaf there is the printer's colophon, which in those early days of printing performed the same function as our modern title-page. Here we find that the book was printed by one known as George Husner in 1491 at Strassburg, or Argentine as it was then called; that the title of the book is *De Proprietatibus Rerum* and the author, Bartholomaeus Anglicus, Ordinis fratris minor. Turning back to the fly leaf we find written thereon in browned ink, "Ex Libris, Ivan Paul Kaid, M. D. 1659." Who was Doctor Kaid?

Turning the page, we reach the table of contents and here we search for some insight into the character of the author and the reason for the popularity of his writing. We see that he has divided his book into nineteen chapters as follows:

1—On God, 2—On Angels, 3—On Rational Animals, 4—On Body Substance, 5—On Man and His Parts, 6—On Ages, 7—On Diseases, 8—On Earth and Heaven, 9—On Time and Its Subdivisions, 10—On Elements, 11—On Air, 12—On Birds, 13—On Water and Fishes, 14—On Earth and Its Regions, 15—On Countries, 16—On Stones and Metals, 17—On Herbs and Plants, 18—On Animals, 19—On Music, Colors, Hunting.

On leafing through the book we find the text in Latin, arranged in well-printed double columns of Gothic type. Written in a concise yet readable style, interspersed with touches of dry humor and homely comments on everyday life, it is not to be wondered that edition after edition was necessary to satisfy the reading hunger of a populace just beginning to loosen its belt after the mental famine of the Dark Ages.

Lack of space does not permit a more detailed description of, or comments on the character of Friar Bartholomew's encyclopedic knowledge. Even in the thirteenth century his Chapter 7, *On Diseases,* was a bit behind the times. His discussion of catarrh, sneezing, difficult breathing, phthisis, and quotidean fever were somewhat dated, but then, what text is not, even in these days of rapid communication and ceaseless turning of the presses?

Bartholomaeus Anglicus' *De Proprietatibus Rerum,* 1491, rests on our shelves, fit subject for bibliophilic gossip. May its tribe increase.

1136 West Sixth Street.

CLINICAL NOTES AND CASE REPORTS

CONTRACTION RING DYSTOCIA: TREATMENT WITH EPINEPHRIN

REPORT OF CASES

By BENJAMIN BAKEWELL, M.D.
Santa Barbara

TWO patients, suffering from contraction ring dystocia, are here reported:

CASE 1.—Mrs. C., age 23, a healthy young primipara with history and physical examination negative, missed her period in November, 1933, and went through a normal and uneventful pregnancy. She went into labor July 28, 1934, and accomplished a normal delivery twenty-four hours later after a second stage of only thirty-five minutes. She received pentobarbital and scopolamin in the first stage and gas-oxygen in the second. Her labor developed slowly but normally, and her expulsive pains were regular, strong, and effective.

After the delivery at 3:36 a. m., it was noted that there was exceptionally little blood loss. While waiting for the delivery of the placenta a second-degree episiotomy was repaired, and immediately thereafter, at 4 a. m., an unsuccessful attempt was made to deliver the placenta by the usual methods, and one ampoule of pituitrin was given. At 4:35 a. m., one hour after the delivery of the baby and after a number of futile attempts to deliver the placenta, a manual extraction was attempted and one hand was passed through the dilated cervix into the uterus. The condition there encountered was strange and unusual to a degree. The hand easily entered the cervix, but instead of passing up into the open uterus, it encountered a funnel of contracting uterine wall ending in a tight rigid ring through which it was impossible to introduce even a finger. It was at once evident that here was a typical hour-glass contraction of the uterus.

COMMENT

The problem then immediately developed itself: What measures must be taken to get past the obstruction and deliver the placenta? A contraction ring always develops below or around some object, whether it be the child's body or the placenta, and the danger to the mother lies, not in the ring itself, but in the necessity for the removal of that which cannot be allowed to remain in the uterus.

The first question was, is this an immediate emergency? Must something be done without a moment's waste of time? The answer was, no. There is perhaps only one purely obstetric third-stage emergency which must be acted upon immediately, and that is hemorrhage. In this case there was not only no hemorrhage but, as already stated, there was less than the normal amount of bleeding. I must confess here that my memory did not bring to mind any routine, usually effective method of relaxing the contraction, and my first reaction was that I was facing the necessity of forcing my way through the ring. This procedure must be undertaken after preliminary attempts at relaxation with deep anesthesia, morphin and atropin, and I visualized, of course, all the possible complications of such an undertaking—shock, hemorrhage, infection, or possibly even rupture of the uterus—and was appalled at subjecting my patient to this experience, normal and uncomplicated as her labor had been up to this period. It was then suggested that epinephrin might be tried to bring about a relaxation of the contraction, and 10 minims was given hypodermically and repeated fifteen minutes later. The hand was again introduced into the uterus, and the ring was felt to slowly give way under moderate pressure. The hand finally slipped through and an adherent placenta was encountered. This was detached by gently slipping the fingers under the adhesions, and delivered. The puerperium was uneventful, and the mother and her child were discharged two weeks later in normal condition.

A review of the literature at my disposal was then undertaken to determine what procedure was advised to be followed in hour-glass contraction. De Lee's "Practice of Obstetrics" cannot be found to more than mention this condition, citing it as a cause of postpartum hemorrhage. No suggestions are given as to its etiology or treatment. However, in discussing tetanic or Bandl's ring contraction about the infant, deep anesthesia and possibly cesarean section is advised.

"Gynecology and Obstetrics" by Curtis, published in 1933, is equally sketchy in regard to hour-glass contraction. The condition is mentioned as occurring, and deep ether anesthesia is advised. In discussing Bandl's ring contraction, deep ether anesthesia is suggested. It states that spinal anesthesia has been tried with good results, and quotes Rucker as saying that five minims of adrenalin may be effective.

I was unable to find any reference in any of our magazines for the last five years to hour-glass contraction, but did find several pertinent articles in regard to Bandl's ring contractions and allied conditions, all, however, very recent.

Dr. Pierce Rucker was evidently the first to suggest the use of adrenalin in contraction ring dystocias. He published an article in 1927 wherein he reported two cases in which the spasm was relaxed by the injection of five minims of adrenalin. He suggested that the spasm is caused by stimulation of the bulbo sacral nerves, while the relaxing mechanism is controlled by the sympathetic fibers. It is these latter that are stimulated by adrenalin. In 1923 Urner reported a case of uterine inversion in which the resultant cervical and uterine spasm was relaxed by gas-ether anesthesia, atropin sulphate, grain 1/150, and one-half cubic centimeter of adrenalin solution. The relaxation was sufficient to permit the inversion to be relieved.

The physiological action of epinephrin is of interest in this connection. Adrenalin is said to affect the plain muscles through stimulation of the sympathetic fibers, so that the result of its action depends upon whether these fibers produce contraction or relaxation. The well-known clinical effect of contracting the skin arterioles, as in the treatment of urticaria, or relaxing the bronchial tree, as in the treatment of asthma, are cases in point. Epinephrin also relaxes certain spasms of the intestinal tract. There is apparently still some confusion as to its exact effect on the muscles of the uterus, but the preponderance of opinion is that this effect is to relax them.

In 1930 Rudolph and Ivy published an article on the physiology of the uterus in labor of the dog and the rabbit. They studied the effect of various drugs on the uterus of these animals while pregnant and during labor, and concluded that, experimentally at least, epinephrin abolishes temporarily the spontaneous activity of both the pregnant and nonpregnant uterus of the dog *in situ* and also the activity excited by the use of pituitrin and ergotamin.

In another article, published by Ivy, Hartman and Koff in 1931, on the contractions of the monkey uterus at term, it is stated that pituitrin causes spastic contraction over the entire uterus followed by intermittent contractions without full relaxation, while epinephrin causes a primary contraction followed by temporary relaxation. They also state that epinephrin abolishes the contractions due to pituitrin and ergotamin.

The second case of contraction ring was encountered in a patient of Dr. William E. Johnson, and was as follows:

CASE 2.—Mrs. L. S., age 30, gravida three, para one, gave a history of having had a tubal pregnancy with operation seven years ago, and one induced abortion. Her last menstruation occurred May 17, 1934, and she went through a normal pregnancy, going into labor at 8 a. m. January 29, 1935, about three weeks before term. The membranes were ruptured artificially at 11 p. m., and at 12:50 a. m. she received quinin sulphate, grains ten, to stimulate lagging pains. She also received nembutol and hyoscin in the first stage. Finally, instrumental delivery being indicated, Kielland's forceps were applied under gas-oxygen anesthesia and the head delivered. Some difficulty was encountered in delivering the shoulders, as they seemed not to come down properly, but they and the arms were finally delivered. From this point no more progress could be made, even with repeated strong traction. This appeared, on the face of it, to be a strange dilemma. The large head, the slightly smaller shoulders, delivered and

yet the body, pelvis and legs resisting delivery. The only possible explanation seemed to be a large fetal tumor. External palpation did not furnish any clue.

The next step to be taken was to explore as thoroughly as possible the cavity of the uterus and the retained portion of the child, and for this purpose the hand was slipped with considerable difficulty up along the baby's body until the fingers reached the level of the lower border of the ribs, where there could be felt a resistant band of hard contracted muscle about the body through which it was impossible to pass more than the tips of the fingers, and this only by depressing the soft tissues of the infant. Again it was evident that we were confronted with a contraction ring. One cubic centimeter of adrenalin was given at once, and a few moments later, with traction on the head and shoulders, the child slowly delivered. The infant was found to be an ascitic monster, with an abdomen measuring 40 centimeters in circumference and with a double hydronephrosis, and it was this distended abdomen that was caught behind the contraction ring.

Here again epinephrin seems to have been the instrument by which a serious situation was changed into one of very little moment.

COMMENT

These two cases are reported that we may call attention to the use of epinephrin in contraction rings; but they may also be used to bring out another suggestion. It would seem to the author that we are too prone to force the uterus in situations where, unknown to us, the unconscious nervous mechanism seems to realize that further expulsive effort may be useless or dangerous.

In the first instance, the very common practice of administering pituitrin in the third stage probably precipitated the contraction ring spasm in a uterus containing an immovable adherent placenta; while in the second case the laboring, overloaded uterus was whipped into a spasm with quinin. Neither of these labors were long nor exhausting, as is usually the case where a contraction ring develops; so that it seems reasonable to lay the blame on the oxytoxics for these two cases of contraction ring dystocia.

1421 State Street.

PHARYNGO-ESOPHAGEAL DIVERTICULUM

By JOSEPH E. TILLOTSON, M.D.
Woodland

DIVERTICULUM of the pharynx is an acquired hernia of the mucosa and submucosa, between the fibers of the inferior constrictor muscle of the pharynx or between the fibers of the cricopharyngeous. The pouch develops in the middle part of the posterior wall. Anatomically the pouch is of pharyngeal origin, but its symptoms are referable to the esophagus which is stenosed through compression by the pouch.[1] The first case of this type was reported during the time of William Hunter, and the specimen is still preserved in the Hunterian Museum, Glasgow.[2] Since then cases have been reported at different times, though the lesion would seem to be relatively uncommon. In a collected series of 878 patients suffering from pharyngeal or esophageal lesions, McMillan[3] reported 3 per cent as pharyngeal diverticula. Carcinoma of the esophagus, the most common type lesion in this group, was ten times more frequent than the diverticulum.

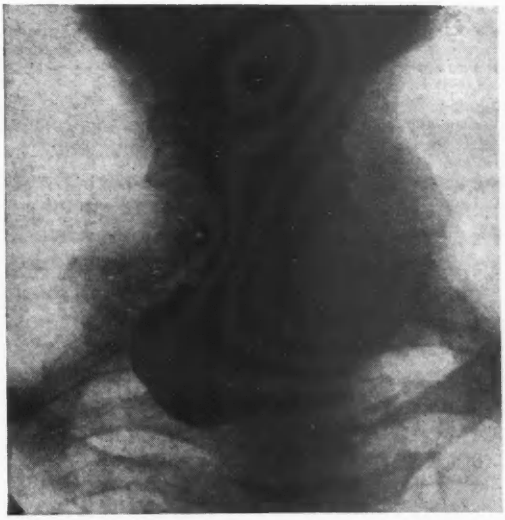

Fig. 1.—V. S. P. Age 59. Large pharyngo-esophageal diverticulum filled with barium mixture. It is directed toward the right side and extends into the upper mediastinum. There were marked symptoms; return of undigested food, delayed swallowing, paroxysms of coughing, and dyspnea.

REPORT OF CASE

V. P. S., male, age fifty-nine, was admitted to Yolo County Hospital, Woodland, California, January 25, 1936. Symptoms were of eight years' standing, and developed gradually until the last six months, when they progressed rapidly and became marked. The first difficulty noticed was that food seemed to catch on swallowing. Undigested pieces of food often returned into his mouth involuntarily. Other people would finish a meal, while he would only begin to eat. During the last six months there were frequent paroxysms of coughing and dyspnea. The patient lost weight; became apprehensive; was fearful of going to sleep; deliberately lived near an emergency hospital, where he might receive hypodermic injections of adrenalin, which temporarily relieved the asthma-like paroxysms of cough and dyspnea.

A nontender fullness in the lower right side of the neck was palpable; at times it changed in size. A barium film showed a well-defined pouch directed toward the right and extending into the upper mediastinum, shown in Figure 1. Dr. R. S. Tillotson examined the patient with esophageal speculum and reported the mouth of the diverticulum was entered by the instrument without difficulty, and that the subdiverticular opening of the esophagus was identified anteriorly.

At operation the anesthetic used was evipal intravenously. Preliminary to this a small rubber tube was passed through the nose to the stomach. An incision was made along the anterior border of the sternomastoid muscle, from the superior border of the thyroid cartilage to the suprasternal notch. The anterior jugular vein was ligated; the deep cervical fascia was divided; then the omohyoid muscle divided; the thyroid and larynx retracted medially, and the carotid vessels laterally. The sac was fairly easy to identify, as it came out from between the esophagus and the bodies of the lower cervical vertebrae toward the right and into the upper mediastinum. It was freed to its junction with the pharynx. When isolated, to the touch it felt very much like a normal gall-bladder and had a somewhat similar gross appearance. Since the pouch went fairly well into the

1 Jackson, Chevalier: Bronchoscopy and Esophagoscopy, Saunders, 1927.

2 Moynihan, Berkeley: The Surgical Treatment and Management of Pharyngo-Esophageal Diverticulum, Surg., Gynec., and Obst., 54:128 (Jan.), 1932.

3 MacMillan, A. S.: Statistical Study of Diseases of the Esophagus, Surg., Gynec., and Obst., 60:394-402 (Feb.), 1935.

mediastinum it was thought best to remove it by two stages. In doing this the general plan outlined by Lahey [4] was followed. At the first stage, the sac was anchored in the upper angle of the wound. Iodoform packing was inserted below. When the margins of the wound came together, about one inch of the pouch projected beyond the surface level of the skin. At the end of ten days, during which time the wound granulated in, the second stage of the operation was done under evipal anesthesia, and supplemented by a small amount of ether by inhalation near the end of the procedure. During the period between the stages of the operation the patient was fed by a small naso-stomach tube. At this second stage operation, the wound was opened at its upper angle and the sac isolated. To the writer the sac wall seemed thinner than at the first operation. Before the first-stage operation the pouch, over a long period of time, was under considerable distention and irritation by food. The period of rest, through the use of the naso-stomach tube, evidently allowed edema in the pouch to subside. The sac was ligated and excised at its neck, and interrupted sutures through remnants of fascia overlapped the pedicle. A small iodoform pack was inserted into the wound, and it was allowed to heal by granulation. Use of the naso-stomach tube was continued for five days. A fistulous tract resulted in the wound, from which small amounts of fluid and food were expelled with swallowing; but this tract completely closed by the tenth day following the operation.

There was complete relief of symptoms by the operation. The patient ate ravenously and gained ten pounds in two weeks. Difficult swallowing, cough, and dyspnea completely disappeared.

COMMENT

The writer has described a large pharyngo-esophageal diverticulum with marked symptoms. It was operated on with dramatic relief of symptoms. According to the recorded cases of these diverticula reported, the great majority protrude to the left, but this one protruded to the right. The large size of the sac facilitated its isolation. The sac was more thick-walled than might be expected. Microscopic study showed considerable muscle in its wall, which doubtlessly was an hypertrophy due to the long duration of food irritation and recurrent emptying. The sac extended well into the upper mediastinum, and this prompted a two-stage operation as a safeguard against mediastinal infection. There was not primary union following excision of the sac, but the fistulous tract healed without undue delay.

Yolo County Hospital.

GONORRHEAL TENOSYNOVITIS

By James E. Reeves, M.D.
San Diego

IT can be assumed that gonorrheal infections of tendon sheaths are comparatively rare, as no mention of this complication is made in any of several standards works on urology consulted.

An occasional report appears in the literature; one case by Hayward,[1] and another by Murray and Morgan,[2] in which incision over affected tendon was productive of pus containing Gram-negative intracellular diplococci, morphologically N. gonorrhea.

Gonorrheal tenosynovitis of the long head of the biceps was diagnosed by Zadek[3] by means of stained sections of tissue, removed by operation.

There is no doubt that this complication has been observed by others and not deemed sufficiently important to report.

REPORT OF CASE

F. J. M., Corporal United States Marine Corps, white, male, age 27.

The patient was exposed to venereal disease in San Diego, California, on January 5, 1936, and took prophylaxis aboard his ship about four hours later. On January 12, 1936, he noticed burning and frequency of urination, followed in a few hours by a creamy urethral discharge. Coincident with appearance of the discharge, the patient bruised the dorsum of his right foot. When he reported to the Sick Bay he complained of marked pain in the foot, in addition to a urethral discharge. On admission, January 13, 1936, he presented the following picture: Temperature, 102 degrees Fahrenheit; pulse, 100; R, 18; urine normal; white blood cells, 19,500; bands, 13 per cent; segs., 50 per cent; lymphocytes, 27 per cent; mononuclears, 10 per cent. Smear of urethral discharge revealed many pus cells, many extracellular and few intracellular Gram-negative diplococci, morphologically, Neisseria gonorrhoeæ. Dorsum of right foot was swollen, tender, and erythematous. There was a profuse, creamy urethral discharge.

The patient was put to bed with foot elevated, and application of constant external heat. Anterior urethral irrigations with 1 to 10,000 potassium permanganate solution were begun.

Temperature for the first six days following admission varied from 99 to 102 degrees Fahrenheit, and the swelling and erythema over the dorsum of the foot gradually increased.

On January 19, 1936, a fluctuating area over the first of the four tendons of the extensor digitorum longus muscle was incised and yielded about 15 cubic centimeters of serosanguinous pus. Smear of the pus obtained showed many pus cells, and intracellular Gram-negative diplococci, morphologically Neisseria gonorrhoeæ.

A drain was inserted and radiotherapy treatments were begun and given twice daily, using two large, well-padded electrodes and 2,500 M. A. (resonance control) frequency, for twenty minutes. Following the second radiotherapy treatment (using the De Forrest laboratories' 250 watt 18 meter, 16.3 kilocycles apparatus), most of the pain disappeared.

From the day of admission until healing of the foot was complete, the white blood cell count averaged about 20,000 per cubic millimeter, and there was an increase in the number of segmented leukocytes. Normal total and differential white blood counts were obtained from the time healing was complete until he was discharged. As the drainage from the incision lessened, the daily afternoon temperature gradually became lower and reached normal ten days after incision, where it remained until discharge to duty.

Examination two weeks after discharge: found the urine clear, prostate and adnexa normal, no urethral stricture present, and normal motion present in the foot.

CONCLUSION

1. An unusual case of gonorrheal infection of a tendon sheath is presented.

2. Treatment with high frequency current appeared to limit destruction, relieve pain and facilitate healing.

3. Tendon injuries during the initial stages of gonorrhea may possibly precipitate gonorrheal tenosynovitis.

Medical Corps, U. S. Navy, U. S. S. Ranger.

4 Lahey, Frank H.: The Surgical Management of Pharyngo-Esophageal Diverticulum, Surg., Gynec., and Obst., 51:227-236 (Aug.), 1930.

1 Hayward, H.: Gonorrhea of Tendon Sheaths, Medizinische Klinik, 27:1683, 1931.

2 Murray, D. W. G., and Morgan, J. R. E.: Gonorrheal Tenosynovitis of the Hand, Canad. M. A. J., 32:374 (April), 1935.

3 Zadek, Isadore: Gonorrheal Tenosynovitis of the Long Head of the Biceps Brachii, J. A. M. A., 104:2176 (June 15), 1935.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

PREANESTHETIC DRUGS

I. A PHARMACOLOGIST'S VIEWPOINT*

C. D. LEAKE, Ph.D. (University of California Medical School, San Francisco).—Proper psychic preparation of a surgical patient, by an anesthetist who appreciates something of the psychology of fear and of the means by which the dread of a surgical operation may be minimized, will do much to improve such a patient's general status before the actual anesthetic is administered. But for the average patient, where time is not always available for this procedure, a suitable preanesthetic hypnotic may be necessary to supplement the anesthetist's psychic approach. A preanesthetic hypnotic, however, is not indicated solely for the relief of fear the patient may have for anesthesia; it has a definite function in the actual induction and conduct of the anesthesia. As pointed out so strikingly by Waters and Guedel,[1] such an hypnotic is most useful in lowering the patient's general metabolic level to a point where the anesthetic may be easily and smoothly administered.

Preanesthetic hypnosis certainly reduces the amount of anesthetic agent required, so that during the direct anesthesia more oxygen may be given than would otherwise be the case, were no preliminary depressant agent employed. Thus, with proper preanesthetic preparation, a satisfactory degree of surgical anesthesia may be readily secured even by nitrous oxid and oxygen without pushing nitrous oxid to a dangerous asphyxial concentration, which is frequently necessary without supplementary depression.

Although much general dissatisfaction has been expressed with morphin and hyoscin (scopolamin) as *preanesthetic hypnotics,* they continue to be used quite routinely in the absence of any pressing clinical necessity for something better. Morphin is definitely indicated, of course, as a *preanesthetic analgesic* when pain is present. A consideration of the pharmacology of these agents may be of interest in supporting the independent clinical condemnation of these agents for *preanesthetic hypnosis* years ago by such competent observers as Herb, Gatch, and Bevan.[2]

The primary effect of morphin is stimulation of the central nervous system, which is promptly masked in humans by a secondary depression. *The stimulating action outlasts the depression.* Thus, after the depression wears off there is increased irritability and cortical excitement, which may be responsible for the initiation of craving and habit. That is, during the after-period of irritability the individual craves the drug again in order to recover the pleasant euphoria of the depressant stage.[3] Another objection to morphin as an adjunct to anesthesia is its tendency to cause constipation, which interferes with a proper postanesthetic condition. However, the definite stimulation of intestinal musculature by morphin may help greatly in preventing postoperative intestinal stasis.[4] Furthermore, morphin is not helpful in anesthesia because its action in depressing respiration interferes with the rapidity of absorption or elimination of an inhalation anesthetic. To these three important pharmacologic objections might be added its tendency to disturb carbohydrate metabolism, in a manner not conducive to the best condition of the patient, as reflected in its effect on blood sugar and on the acid-base balance of the blood.[5] In justice to morphin, however, it should be noted that the clinical opinion, that it interferes with kidney function, has little support when critically examined.[6] The suppression of renal activity under anesthesia seems to be a reflex effect of irritation of the laryngeal mucous membrane by the anesthetic gases.[7]

There is no doubt, however, that morphin remains the best preanesthetic hypnotic when *traumatic* pain is present. Its amazingly effective action in relieving traumatic pain should not be denied the patient, either before or after the operation, if its use is indicated. The National Research Council is spending a great sum of money annually to finance chemical research at the University of Virginia, and pharmacologic work at the University of Michigan under the direction of Dr. N. B. Eddy, to develop a satisfactory substitute for morphin which will be free from its addiction dangers. The resultant pharmacologic studies are currently appearing in the *Journal of Pharmacology and Experimental Therapeutics.* Meanwhile, a morphin derivative called "dilaudid" was enthusiastically introduced in this country by Alvarez.[8] Subsequent clinical use has indicated, however, that "dilaudid" has probably the same potential addiction properties as those possessed by morphin. Dr. Norman A. David, formerly of this laboratory, has made an interesting comparison of the two agents.[9]

* From the Pharmacological Laboratory of the University of California Medical School, San Francisco.

1 Waters, R. A., and Guedel, A. E.: Personal communication.

2 Herb, I. C.: J. A. M. A., 56:1312, 1911. Gatch, W. D.: *Ibid.,* 57:1599, 1911. Bevan, A. D.: *Ibid.,* 57:1821, 1911.

3 Collins, K. H., and Tatum, A. L.: J. Pharmacol. and Exper. Therap., 27:237, 1926.

4 Plant, O. H., and Miller, G. H.: J. Pharmacol. and Exper. Therap., 21:202, 1923.

5 Leake, C. D., and Koehler, A. E.: Arch. Internat. de pharmacodyn. et de thérap., 27:221, 1922.

6 Haines, W. H., and Milliken, L. F.: J. A. M. A., 85:1853, 1925.

7 Dooly, M. S., and Wells, C. J.: Am. J. Physiol., 90:330, 1929.

8 Alvarez, W. C.: Proc. Staff Meet., Mayo Clinic, 7:480, 1932.

9 David, N. A.: J. A. M. A., 103:474 (Aug. 18), 1934.

Little rational evidence exists that opium or a mixture of its alkaloids free from non-alkaloidal material ("pantopon") has any advantage over morphin as a preanesthetic hypnotic. Such a mixture of the differently acting alkaloids in opium is an irrational material to use, since not only aggravation of some of the deleterious effects of morphin, as its constipating action, is known to occur by giving it with other opium alkaloids, but indeed few of these other alkaloids have been properly studied, either pharmacologically or clinically, to know how they may act. Scientific therapy demands the use of chemical agents singly for definite effects, avoiding confusing mixtures of any sort. Certainly, preanesthetic hypnosis should be simplified and rationalized rather than complicated.

If there is pain present due to swelling of tissue, then morphin is not as effective as such drugs as amidopyrin, the salicylates or the cinchophens. These antipyretics exert their pain-relieving action, when pain is due to swelling of tissue, by pulling fluids out of such swollen tissue back into the blood stream, as indicated by the careful studies of Barbour.[10]

Hyoscin or scopolamin is said to synergize with morphin, enhancing its depressant action, especially on the cortex. The pharmacology of hyoscin has not been very thoroughly studied, and there seem to be few clinical observations of a critical nature on the effects of this drug in connection with anesthesia. Hyoscin is chemically related to atropin and has a similar effect on the autonomic nervous system. This action, as we shall see, may be detrimental in preanesthetic medication. In the absence of any reliable or critical evidence of its usefulness as a preanesthetic hypnotic, little justification exists for its continued use merely because of clinical habit or routine. There is an opportunity here for clinical judgment to evaluate critically its status as an adjunct to anesthesia. Barlow has recently shown experimentally that hyoscin is of no value in nitrous oxid anesthesia and, indeed, it may be detrimental.[11]

In the effort to find more satisfactory preanesthetic hypnotics which might be substituted for morphin, a number of other substances were studied in my laboratory from the point of view of their effects on the body functions of normal human subjects, in comparison with morphin.[12] We studied especially the action of these various depressant drugs on basal metabolic rate, tactile discrimination, respiration, pulse rate, and blood pressure. We thought our observation might furnish us with objective quantitative criteria for estimating depressant action of the different drugs on the central nervous system. While codein has much to recommend it over morphin as a central nervous system depressant, it is not sufficiently powerful, in our judgment, to justify its use clinically for preanesthetic hypnosis.[13]

[10] Barbour, H. G.: J. Pharmacol. and Exper. Therap., 29:427, 1926.

[11] Barlow, O. W.: J. Pharmacol. and Exper. Therap., 46:131, 1932.

[12] Anderson, H. H.: Proc. Soc. Exper. Biol. and Med., 27:102, 1929.

[13] Chen, M. Y., and Anderson, H. H.: Proc. Soc. Exper. Biol. and Med., 27:719, 1930.

The exploitation of sodium amytal suggested that we study barbital and its common derivatives from this standpoint. *As a result of our observations on normal humans, we may recommend barbital by mouth as a possible substitute for morphin as a preanesthetic hypnotic, if no pain is present.* In the average adult it may be expected to bring relief from fear and apprehension, and to dispose toward sleep, relaxation and amnesia, in doses of 1 to 1.5 grams, or even higher. It depresses the basal metabolic rate in the same way as morphin, and is otherwise generally depressing. No residual stimulation results, and the psychic disadvantage of hypodermic administration is avoided. It may sometimes cause a cutaneous rash, however, and it is of no use as a hypnotic if pain is present. Subjective reactions to barbital vary greatly with physical constitution and social background. If the ordinary local anesthetics are to be used, it is definitely indicated since it protects against their toxic manifestations.[14] With spinal anesthesia, the status of which still remains to be established, more of an analgesic effect is needed in the preanesthetic medication, and morphin or amidopyrin is indicated.

We could not find that phenobarbital, or any of the common commercial modifications of barbital, including "amytal," "dial," "ipral," "neonal," and "phanodorn," have any significant advantages over barbital as hypnotic agents in man. Indeed, they all showed some disadvantages.[15] Eddy, however, from animal experiments, believes "amytal" has the greatest depressing effect.[16]

It is sometimes amusing to the pharmacologist to observe the enthusiasm with which certain clinicians continue to report experiences with new drugs. There seem to be fads and styles with drugs as with clothes. If medical men generally realized the extent to which preliminary and unconfirmed pharmacologic evidence is distorted by drug concerns (usually foreign) for clinical exploitation of new agents, they would undoubtedly be more reserved in expressing clinical opinions. Very few new drugs reach clinical trial in an ideal scientific manner.[17]

Sodium amytal was thus overenthusiastically recommended as a general anesthetic when given in strongly alkaline solution by vein. While the induction of sleep and amnesia is dramatic by this technique, it is obvious that the agent is not in itself sufficiently analgesic to be a satisfactory general anesthetic except in dangerous doses. There is too narrow a margin of safety between the dose causing real anesthesia and that depressing the medullary centers to a lethal level. Sodium amytal thus falls in the class of anesthetic adjuncts, as now admitted by its original proponent.[18] The intravenous, or even oral, use of this

[14] Tatum, A. L., and Collins, K. H.: Arch. Int. Med., 38:405, 1926. Knoefel, P. K., Herwick, R., and Loevenhart, A. S.: J. Pharmacol. and Exper. Therap., 39:397, 1930.

[15] Leake, C. D., Chen, M. Y., and Anderson, H. H.: J. Pharmacol. and Exper. Therap., 40:215, 1930.

[16] Eddy, N. B.: J. Pharmacol. and Exper. Therap., 33:43, 1928.

[17] Leake, C. D.: J. A. M. A., 93:1632 (Nov. 23), 1929.

[18] Zerfas, L. G., and McCallum, J. T.: Anesth. and Analg., 8:349, 1929.

substance as a routine preanesthetic hypnotic is not justified until it has been more thoroughly evaluated in comparison with what, in our opinion, is as satisfactory, and certainly a less expensive official drug, barbital.

A new German barbital derivative, called "evipal," has recently been exploited for intravenous anesthesia. It is subject to the same general criticisms as sodium amytal by vein. It has, however, one advantage in that it seems to be fairly rapidly destroyed in the body, so that recovery from an anesthetic dose is, consequently, rapid.

Stormount[19] and associates have directly studied the preanesthetic value of various barbitals in nitrous oxid and oxygen anesthesia in rats. They found that 85 per cent nitrous oxid with 15 per cent oxygen (enough to prevent anoxemia at sea level) will anesthetize with 30 per cent of the average lethal dose of "dial" and "neonal," but that 45 per cent of the average lethal dose of "amytal," barbital, and phenobarbital is required to give this same effect. In man, however, we found barbital the most satisfactory depressant of the series, in so far as lowering of the basal metabolic rate, dulling of tactile discrimination, and tending toward sleep are concerned. Amytal and phenobarbital, we noted, increased the basal metabolic rate except in high doses. The relative merits of the several derivatives of barbital as preanesthetic hypnotics remain, therefore, to be further evaluated before surgeons are justified in using any of its modifications for this purpose, in preference to the well-studied parent substance, barbital.

It is hardly possible that any of the other multitudinous commercial derivatives of urea exploited so vigorously, especially by the Germans, have any great advantage over barbital in this regard. One of these, "pernocton,"[20] includes bromin, which introduces another difficult depressant factor to evaluate. Chemists have sought for some time to develop barbital derivatives which are rapidly destroyed or removed from the body. One of these, "evipal," has already been mentioned. In this country the Lilly and Abbott laboratories developed, almost simultaneously, an identical compound called, by the former, "pentobarbital," and by the latter, "nembutal." These barbitals are relatively short in action, but the effects of repeated administrations must still be carefully studied in order to determine whether any residuum remains which may lead to the danger of chronic poisoning.

Particularly to be condemned are combinations of barbital or its derivatives in fixed proportions with amidopyrin, such as "allonal," "cibalgin," or "pyraminal." Aside from the violation of rational therapy by such mixtures of a hypnotic with an analgesic in fixed proportions without regard to the indications of the individual patient, as scored by the Council on Pharmacy and Chemistry,[21] Koppanyi and Lieberson[22] have shown that the analgesic component of such mixtures is eliminated much more rapidly than the hypnotic, so that grave danger of the cumulative effect of the latter is present if the dose is repeated to get continued analgesic action.

The same general considerations hold for tribrom-ethyl alcohol ("avertin"). Enthusiastically advocated as a general anesthetic by those who hitherto rarely saw good modern anesthesia by gas and oxygen, more critical clinical opinion now recognizes this agent more properly as merely an adjunct to anesthesia.[23] The difficulties of preparation, the dangers of toxic decomposition, the necessary mode of administration and the pharmacologic action of the drug limit its usefulness, as in the case of sodium amytal by vein, to abnormally apprehensive or excited patients, and then in doses not so high as to give partial analgesia with dangerous depression of the vital centers—that is, not much more than 75 milligrams per kilo body weight. It is peculiar that physicians should become so excited over tribrom-ethanol by rectum, when paraldehyd, a much cheaper and safer drug, was used in this manner as a preanesthetic agent many years ago. The enthusiasm over tribrom-ethanol has revived interest in paraldehyd as a safe and effective preanesthetic hypnotic.[24]

The prolonged action of tribrom-ethanol and of the barbitals, especially sodium amytal by vein, may have a useful postoperative effect in keeping the patient quiet and asleep. But often with the barbitals motor excitement may supervene, especially if large doses are used, and contrariwise, if the dose is too high, such severe depression may result that constant attention is needed to prevent accidental asphyxiation or other complications.

The central nervous system depressant action of magnesium sulphate and its dramatic antagonism by calcium chlorid were demonstrated experimentally by Meltzer and Auer[25] in 1908. Clinically developed by Gwathmey[26] for aid in preanesthetic hypnosis, its possible field of service has become somewhat neglected in the undignified rush to help exploit the newer commercialized drugs. The characteristic feature of its action is depression of motor tone and activity, so that it would seem to be especially indicated in patients with motor excitement or with so much muscular tone as to interfere with satisfactory surgery. One or two cubic centimeters of a 50 per cent sterile solution injected intramuscularly is an average dose for this effect. It is claimed that the drug synergizes with morphin and the general anesthetics, so that care must be observed in its use with these agents.

Atropin was introduced as an adjunct to chloroform anesthesia, in order, by paralyzing the pe-

19 Stormount, M. F., et al.: J. Pharmacol. and Exper. Therap., 39:165, 1930.

20 Raeschke, J.: Klin. Wchnschr., 8:1800, 1929.

21 Council on Pharmacy and Chemistry: J. A. M. A., 86:1853 (June 12), 1926.

22 Koppanyi, T., and Lieberson, A.: J. Pharmacol. and Exper. Therap., 39:177, 1930.

23 Edwards, G.: Brit. M. J., 2:713, 1929. Waters, R. M., and Muehlberger, C. W.: Arch. Surg., 21:887, 1930. Wood, D. A.: Calif. West. Med., 33:719, 1930.

24 Stewart, J. D. Brit. M. J., 2:1139, 1932.

25 Meltzer, S. J., and Auer, J.: Am. J. Physiol., 23:141, 1908.

26 Gwathmey, J. T.: J. A. M. A., 85:1482, 1925.

ripheral endings of the vagi, to prevent reflex stoppage of the heart during the induction stage. With ether anesthesia it is advocated on the basis of preventing the "mucous inundation" caused by the irritant action of ether vapor on bronchial mucous membranes, and/or suppressing salivation. With modern gas-oxygen anesthesia, especially when the excellent rebreathing technique devised by Waters is used [27] (in which every aspect tends so nicely to conserve the physiologic balance of the patient), these excuses for the use of atropin do not exist. This drug should certainly not be used routinely.

Osborne points out [28] that it is not good practice from the standpoint of physiology to interfere with the protective function of bronchial secretion, as long as satisfactory cough reflex is present to prevent the formation of mucous plugs with the danger of resultant atelectasis. The bronchial and intestinal relaxation induced by atropin cannot be considered beneficial to the postoperative condition of the patient. Atropin further tends to cause some cortical stimulation, and surely the dryness of the mouth it produces is no joy to the patient already thirsty in the usual postoperative state. Atropin, therefore, in my opinion, should be reserved for use when specially indicated, as in chloroform or extensive ether anesthesia, or when there is reason to expect an embarrassing mucous or salivary secretion during the operation.

In conclusion, routine preanesthetic medication is to be strongly condemned. So also is an undignified rush to aid the clinical exploitation of new commercial agents not yet properly evaluated pharmacologically. Each patient should be separately considered, from the standpoint of preanesthetic hypnosis, with regard to type of chemical agent to be employed and, if necessary at all, dosage and mode of administration. The clinical evaluation of new agents should be left to university or research hospitals, where critical study with proper control methods are most likely to be found.

* * *

II. AN ANESTHETIST'S VIEWPOINT

MARY E. BOTSFORD, M. D. (807 Francisco Street, San Francisco). — The selection of the drug and estimation of dosage are of as much importance in producing and maintaining safe and efficient anesthesia as the agent employed and the method of administration. Modern medicine requires that the patient come to the operating table in the best attainable physical and psychic condition. Where formerly the choice was limited to a few hypnotics, pharmacologic progress has increased their number so that it is now possible to fill the need of the individual case.

The various forms of *opium* have not so far been superseded by any of the newer discoveries, but its action may be assisted and modified by such adjuvants as the barbiturates, tribromethanol, evipal, paraldehyd, etc. According to Hewitt, idiosyncrasy to morphin exists in only 2 per cent of cases. It is more frequent in the *barbiturate group*. With the latter it is possible, in adults at least, by giving a minimal dose the night before operation, to establish the individual reaction, and the preanesthetic dose may be prescribed accordingly. The great value of the barbiturates lies in their hypnotic effect and, if given at least an hour before operation, they prevent the frequent stage of excitement which, by accelerating cardiac and respiratory action, lengthens the period of induction and necessitates the use of a greater amount of the anesthetic agent. When followed by morphin or pantopon, a quiet induction and smooth maintenance of inhalation anesthesia are ensured.

Avertin is of value in apprehensive patients and many minor operations, as well as brain surgery, where inhalation anesthetics increase hemorrhage, may be performed under its effect without further anesthetization. The addition of atropin to the dose of morphin is a routine procedure, which is strongly to be condemned, notwithstanding the fact that a large majority of the adult patients operated in this country are premedicated with a one-sixth to one-quarter grain of morphin and 1/150 to 1/120 grain of atropin. There has not yet been discovered a better preanesthetic drug than morphin, but the addition of atropin often nullifies its benefits. Atropin is the physiologic antagonist of morphin, whose sedation—psychic, cardiac, respiratory, and secretory—is of the utmost value in producing and maintaining efficient and safe anesthesia. The purpose of atropin is said to be its action on salivary glands, and if given alone it does decrease secretion; but with any form of opium it overcomes the effect of the latter in controlling mouth secretions. Further, its stimulating effect upon respiration is a definite disadvantage, particularly in abdominal surgery; the increased diaphragmatic activity interfering with intestinal relaxation, resulting in the necessity for producing too deep anesthesia.

Ether is in itself a cardiac and respiratory stimulant. The gaseous anesthetics, nitrous oxid, ethylene, and cyclopropane have little effect on cardiac and respiratory functions, when anoxemia is not present. The only logical place for atropin is in chloroform anesthesia, where respiratory stimulation is necessary.

Scopolamin, which fell into disfavor some years ago because of deaths resulting from an impure product, is being much used in combination with morphin. Sollmann finds it sedative in all doses, while even moderate doses of atropin are excitant.

Protection of the psyche from distressing mental impressions is of even greater importance in children than in adults. Psychiatrists and psychologists have demonstrated abundantly the evils, often developing years later, of mental complexes definitely traced to early impressions caused by fear, and there is no more potent factor in its production than the dread of operation, the awe-inspiring preliminaries, and the often forcible administration of anesthetics.

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27 Waters, R. M.: Arch. Surg., in press.

28 Osborne, W.: Lecture on Surgical Applications of Physiology, San Francisco, 1930.

The addition of the barbiturates has helped immeasurably in providing an escape from the depressing effect of fear by influencing the nervous system sufficiently, when administered preanesthetically, to produce unconsciousness, or at least indifference to the sights and sounds incident to transportation to the operating room and the induction of anesthesia. The mass of evidence available in the literature, based on research conducted by pharmacologists, anesthetists, and surgeons, has proved conclusively the value of the barbiturates.

Determination of the drug and dosage should depend not only upon the kind of operative procedure, but the age, physical and mental condition of the patient.

* * *

III. A SURGEON'S VIEWPOINT

JOHN HOMER WOOLSEY, M. D. (Woodland Clinic, Woodland). — The use of preanesthetic drugs, in the opinion of the majority, marks great advancement in the medical science because of the additional comfort and care they afford our surgical patients. As human beings endowed with comprehending minds, we reason and thereby suffer mental as well as physical injury. To the average patient there is nothing more important than the anesthetic because of the fear of giving up control of the vital processes. Preanesthetic drugs, when properly used, eradicate fear and assist in mental and physical rest. They help prepare the patient to undergo the necessary physical effort of any surgical procedure.

Safety to the Patient

The safety of the patient is always the paramount factor. Preoperative drugs should not be so powerful as to prevent the anesthetic agent from being the controlling factor. When seen in the operating room, it is true that the effect of a massive dose of preanesthetic medication generates enthusiasm, but its complications and sequelae, when observed in the postoperative period, dampen this enthusiasm.

The desired effect of preoperative medication is to quiet the patient, to eliminate apprehension, to enable the general anesthetic agent to control the patient's respiration and final relaxation, and to assist in a prompt postanesthetic recovery. How are we to obtain these?

In the first place, standardization of preanesthetic medication is impossible. It is an individual problem. Not only body weight, but age, sex, degree of nervousness, metabolic rate, and temperature are influential factors. A patient's susceptibility must, therefore, be individually estimated. This can be done by the use of divided dose—that is, a portion the evening before and another portion preoperatively the morning of the operation. Observance of the patient's reaction to a preanesthetic drug given the previous evening will more accurately determine the amount for immediate preoperative medication.

The postanesthetic recovery of a patient should be sufficiently prompt to allow voluntary response within one hour. Prolonged depression leads to retained secretion in the respiratory system and a greater tendency to partial pulmonary collapse. Instances of the dropping back of the tongue, with obstruction of the glottis and the interference of respiration, have been reported. It is also desirable to have the patient's coöperation in remaining covered, and in the administration of parenteral fluids.

Influential Factors

Body weight is the most important influential factor in determining the dosage of the preanesthetic drug. Heavily muscled individuals, such as athletes and workmen, demand more drugs than those whose weight consists of a considerable degree of fat.

Age is of importance, since under twelve years and over sixty years, the barbituric acid derivatives do not have a uniform effect and afterward are too depressive. Also in the aged, certain forms frequently stimulate unpleasant dreams and fearful memories, and in those suffering from cerebral disease toleration of these drugs is poor.

Because of its importance, let us reiterate, much depression of the respiration in the very young, the old, and in those with cerebral disease occurs with the preanesthetic drugs, and they must be used, therefore, with caution. In children drugs by mouth are not always readily absorbed, and rectal administration is often disturbing and occasionally expelled.

Sex plays a part chiefly because of the increased musculature of the male which demands, accordingly, more or less of a drug. There is a question in regard to the advisability of preanesthetic drugs in the cesarean section, for there should be no handicap to the respiratory efforts of the baby; and although many employ a barbital or morphin and claim no disturbance, others report instances of a definite depressive effect upon the baby.

Apprehension attendant upon an operation demands more sedation. A patient who has previously experienced the effect of preanesthetic medication has a certain amount of anticipation with the second administration, and will be more resistant to the same amount of the drug.

An increased metabolic rate and fever—somewhat similar factors, for they produce a more rapid absorption and elimination of any drug—demand a greater dosage. For example, in thyrotoxicosis the average dosage will produce inebriation rather than the desired drowsiness.

Choice of Medication

It is a known fact that the preliminary hypodermic of morphin, in the dosage of .015 to .01 gram (one-quarter to one-sixth grain) is of benefit; but there can be discussion as to the merits of pantopon, dilaudid, and scopolamin.

Pantopon supposedly depresses respiration less in relation to its narcotic activity, produces vomiting less readily, has less prolonged action, and is less euphoric than morphin. It has not proved to be as uniform in action and, as Barlow states, "it is not believed to have as *tranquilizing proper-*

ties as morphin." Collins of Chicago, on the other hand, is of the opinion that pantopon is a better drug than morphin. Personally, our experience is similar to that of Barlow.

Dilaudid, which is a quite commonly used drug in place of morphin, has an equal amount of narcotic effect, is excellent for routine use in relief of pain, but does not possess the desired preoperative hypnotic action.

Scopolamin (hyoscin) has no sedative effect, but does have an amnesic or disorientation phenomenon. It is this author's experience that, in the aged, this drug has been quite disturbing because of stimulation of unpleasant dreams and fearful memories. In children and adults it has a place, for it combines, with the above-mentioned effects, a depressant to the salivary and mucous secretions. Leech of Regina, Canada, recommends its use in small doses in addition to morphin, especially for children.

Tri-brom-ethyl alcohol (avertin) has a hypnotic, rather than an anesthetic effect, and it is recommended that it should be used only as a hypnotic in the production of "basal anesthesia." When used in too large a dosage, it carries with it the danger of losing the paramount factor demanded in anesthesia—the control of the patient. The demands made in the administration of this drug are comparatively great, and the period of postoperative recovery is prolonged, requiring increased nursing care. Supplemented with local anesthesia, this drug appears today to be the choice for brain surgery. In such cases, a long operation and special nursing care are the rule; but the operation, while meticulous, is not as shocking as the average celiotomy. In its favor are its complete elimination of psychic trauma, its lack of accompanying or subsequent nausea and vomiting, and its rare pulmonary sequelae. Against its use is the great potential danger to the safety of the patient in the loss of control by the attending physician or surgeon.

The *barbituric acid* hypnotics have demanded an increasing interest during the past fifteen years. There is a unanimity of opinion that oral or rectal administration is preferable and is sufficient, provided there can be an interval of three-fourths of an hour before operation. The intravenous method has too narrow a margin of safety. There is also confusion as to the best form of this drug because of the variation of hypnotic efficiency, the rate of oxidation and the speed of elimination which these barbituric acid combinations possess.

From the data available concerning some of the forms, the following facts have been determined:

Di-ethyl barbituric acid (barbital), 25 to 30 per cent, is used, is absorbed slowly, and 70 to 75 per cent is eliminated over seven to eight days.

Phenyl-ethyl-barbituric acid or phenobarbital (luminal) 80 per cent is used, is absorbed slowly, and the 20 per cent eliminated appears as late as the tenth day.

Allyl-iso-propyl barbituric acid (allonal) 80 per cent is used, is absorbed at a moderate rate, and all is eliminated by twenty-four hours.

Sodium iso-amyl-ethyl barbituric acid (sodium amytal) no definite data is available; but in comparison with phenobarbital, it is absorbed more rapidly, and has a greater and longer hypnotic effect, lasting up to ten hours.

Sodium ethyl-methyl-butyl barbituric acid or pentobarbital sodium (nembutal) no definite data is available, but in comparison with all other barbiturates it is rapidly absorbed, has a greater hypnotic and a less-prolonged effect, which is over, on the average, of four hours.

The more rapid the absorption the greater is the hypnosis, and the more rapid the elimination the quicker the recovery. Therefore, we can, with with some scientific precision, choose the barbituric derivatives best adapted to the type of patient and operation. In order to assure the patient a restful night, preoperatively, sodium amytal or sodium pentobarbital are most universally satisfactory, since they are absorbed quite completely at a moderate rate and eliminated within eight to ten hours. For the immediate preoperative use, a rapidly absorbing form (greater hypnotic power) is advisable, and sodium pentobarbital (nembutal) is the choice. For prompt postoperative recovery a quickly eliminated form should be used, and we believe sodium pentobarbital (nembutal) gives the best results.

A most satisfactory hypnosis and prompt postoperative recovery are secured when sodium amytal is given the previous evening and, according to the patient's response, a dose of pentobarbital sodium is administered one and one-half hours before operation.

Personally, we believe the barbituric acid derivatives are the most practical and the safest drugs. For preanesthetic medication we employ sodium amytal .18 gram (grains iii) or pentobarbital sodium .09 gram (grain iss) orally the evening before operation, and pentobarbital sodium (nembutal) .09 gram (grain iss) one and one-half hours before surgery, with a hypodermic administration of morphin .01 gram (one-sixth grain) and atropin .004 (1/150 grain) one-half hour before surgery. Our experience has been similar to Barlow and his co-workers, who report that 68 per cent are drowsy and uninterested in any procedure, 24 per cent asleep, and 8 per cent inebriated and move slightly when disturbed. As previously stated, the aged do not stand barbitals well; yet, recently, pentobarbital sodium—possibly because of its relatively rapid absorption and elimination—has given us the desired effect without as much mental disturbance as with the use of other barbitals.

Conclusions

One's opinion, influenced by his experience, changes from year to year; therefore, the combined opinion of the profession on this problem is desired. It seems wise to select a combination of agents for complete elimination of psychic trauma, physical relaxation and freedom from pain, without depression of the patient's vital functions, but with control of the patient during the preanesthetic, anesthetic, and postanesthetic stages.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

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THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *American Medical Association Fellowship.*
2. *Who Knows Better?*
3. *Medical Legislation.*
4. *Legislation Flashes.*
5. *This Is the Law!*
6. *Endowments.*
7. *A Southern Trek.*

DEPARTMENT OF PUBLIC RELATIONS

1. *California Code Commission.*
2. *Automobile Versus Airplane Deaths.*
3. *San Mateo County Society Sets an Example.*
4. *Objectives of the California Heart Association.*
5. *Federal Resettlement Administration.*

ASSOCIATION ACTIVITIES

AMERICAN MEDICAL ASSOCIATION FELLOWSHIP

At the beginning of a new year it is timely to once more urge members to make application for fellowship in the American Medical Association. Our national organization performs a very tremendous amount of service for the profession as a whole as well as for every member. This service is related to national legislative matters and our relationship to the public and public activities related to health welfare and medical service.

There are twelve bureaus and councils with full-time directors or secretaries, located in the headquarters building in Chicago, and they, with the general officers and some seven hundred employees, are continuously and persistently engaged in work that concerns every doctor of medicine. Without that service our profession could not maintain the position and standing that we now hold. Without that service and alertness we would be the pawns of designing propagandists and those who are inspired by selfish and ulterior motives and quests. Our national association renders a very distinct and personal service to every doctor of medicine. It merits the support of every practitioner. That support is subscribed by becoming a Fellow of the American Medical Association. Are you rendering that support?

To become a Fellow you must make a special application through your State Secretary. Your membership in your county and state association does not carry or automatically convey to you American Medical Association Fellowship. Special application must be made as indicated above. Send in for an application blank today.

The annual fellowship dues are $7. In return for these dues, you receive the benefits of representation and, in addition, the weekly issue of the *Journal of the American Medical Association*. Valuable as this journal has been, it is going to become more valuable by reason of a new department or section on medical economics that was added at the beginning of January. This new section will present information related to the Security program, federal legislation, and social movements—questions that are receiving widespread attention in Washington and in every state.

Hence, the recommendation that you apply for fellowship and lend support to these activities that are so vital to your future.

*All articles listed under this caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

WHO KNOWS BETTER?

An institution's medical director was conducting a few visitors through his sanitarium for mental cases. He paused before one patient, and asked: "John, why do you insist on scratching yourself?" "Because," the patient replied, "I'm the only person in the whole world who knows where I'm itching."

The medical profession alone knows what is best for the health needs of the public and what measures will sustain and provide adequate medical care on a quality basis consistent with scientific practices. While we know this to be true the public and legislators are not so minded, and as a result these lay groups and propagandists join with the politician in a nation-wide movement to create a new system for the providing of medical care and are ignorant of basic facts and conditions.

It is incumbent upon all of our members to educate these new deal proponents singly and collectively.

MEDICAL LEGISLATION

Elsewhere in this issue will be found the first "Legislature Flashes," transmitting information related to the bills that have been introduced in the present session of the legislature in so far as they relate to health and medical care. No attempt is made to dissect them or to indicate their apparent or hidden purposes. This will be done through other channels. These "Flashes" should indicate public and political trend. After all, the question of so-called state medicine, informed persons assert, will not be decided by the medical profession. The public will make the decision through its legislative representatives. Or rather, an organized minority of the public joining with an organized minority of politicians will write the ticket. That is the history of all new movements and new legislation.

The rôle played by medicine will be determined by how strong an organized group it can mobilize to shape, guide, and control the efforts and influence of the proponents for state-provided medical care. There rests the answer as to what medical legislation will be enacted during the next four or five months. Radical, ill advised, undesirable legislation to provide medical care under state or federal control can be defeated only by organizational influence and will depend upon the personal interest and work of every member. Therefore members should evidence constant interest in their county societies and unite in its representations.

LEGISLATURE FLASHES

On going to press (January 20) the "bill hoppers" of the legislature are crammed, the printing bureau is swamped, and the end is not discernible. The legislature adjourns January 22 for the customary thirty-day interval. More bills may then be introduced by general consent.

It has been impossible to obtain copies of bills relating to health and medical care because the printing department of the legislature is unable to keep up with the introduction barrage. Advance information gives the following as some of the bills that have been introduced:

Narcotic regulations.

Ten skeleton bills amending the Medical Practice Act.

X-ray Laboratory Bill.

Farm Bureau County Hospital Bill.
Medical Service and Hospital Bill (Senator Williams).
Venereal disease control.
Hospital Insurance Bill.
Medical Care Insurance Bill.
Dental Bill.

All these comprise legislation that directly affect medical care and practice. Our Committee on Public Policy and Legislation is intensely engaged in its work, and is giving most thoughtful attention to legislative matters.

It is well to remind members and county societies that no action for or against any legislative enactments should be registered until our committee or the Council outlines attitude and position. In due time and course a digest will be sent to every county society with instructions as to action. Await those instructions, but be prepared to respond when word reaches you through your county officers.

THIS IS THE LAW!

Eighteenth—The certificate issued herein for the practice of midwifery may be revoked for the failure to have the following equipment (in each case): Nail brush; wooden or bone nail cleaner; jar of green or soft castile soap; rubber gloves; tube of sterile vaseline; clinical thermometer; agate or glass douche reservoir; two rounded vaginal douche nozzles; two rectal nozzles, large and small; one soft rubber catheter; blunt scissors for cutting cord; either lysol, carbolic acid, or bichloride of mercury tablets; boric acid powder; one per cent solution of nitrate of silver; medicine dropper; narrow tape or soft twine for tying cord; absorbent cotton (preferably in one-quarter pound packages); no other instruments are to be used by a midwife. [Amended 1915, p. 184; amended 1917, p. 93; amended 1921, p. 1009; amended 1925, p. 281; amended 1927, p. 99; amended 1929, p. 626.]

Queries: Why agate or glass reservoirs? Why rounded tips? How does the fluid in the reservoir pass to the tips? As some member said: "A resident interne or nurse would be tossed out on their ear if they attempted to douche a woman in labor or after labor has terminated." Who had an overstock of quarter-pound packages of cotton?

Yes, this is the law of today! Surely, its framers of yesteryears (1927 and 1929) were meticulous in drafting an inventory for the midwives' obstetrical bag.

ENDOWMENTS

A doctor of another state, in providing for a $50.000 endowment fund contribution to his state medical association, wrote:

"What I am endeavoring to do is to create an unending service to the medical profession and through them a better service to the sick. A man who serves only while he lives, serves only for a very short period. I would like for my services—existing in some form—to go on indefinitely after my physical being has ceased to exist."

What a noble thought and deed! We trust that those of our members who are able will emulate that ideal and purpose, and provide that their services may go on indefinitely in our Association.

A SOUTHERN TREK

At 5 p. m. on Tuesday, January 6, President Pallette and your Secretary set forth in an unusual rainstorm from Los Angeles for Santa Ana, where Councilor Emmons was met, to attend the regular meeting of the Orange County Medical Society. At 8 p. m., in spite of the rain, some one hundred members of the county society convened. Addresses were made by the State Association officers, and until 10:45 p. m. a general discussion, with questions and answers, dealt with national, state, and local problems that were related to medical care, practice, public health, and social-economic problems vital to our members.

Orange County members constitute one of our most active county units. They reflect in a most satisfactory way that which can be accomplished by unity of purpose and action. They are meeting in a most admirable way all of the medical and public-health questions that concern their community and are rendering a service that inspires public confidence.

By 12:30 a. m. we were in Los Angeles, and though the rain continued, its discomforts did not dampen the enthusiasm engendered by this county meeting.

On Wednesday your president and secretary went to Riverside, where they were met by Speaker Roblee and Councilor Emmons. At 8 p. m., 108 members of the Riverside and San Bernardino County Societies and ladies sat down to dinner in the Mission Inn. The postprandial program was opened by two vocal and harp selections by local artists, and fixed the harmonius theme of the subsequent addresses and discussions presided over by Speaker Roblee.

The members of these two constituent units also reflected the cohesive unity of our Association, and impressed the State officials with the fact that they are loyal to all of our ideals and policies.

At 9 a. m. on Thursday, January 7, President Pallette, Speaker Roblee, Councilor Emmons, and the State Secretary set forth for El Centro, in Imperial County. We skip the snow on orange trees and blossoming roses in Redlands and the hunger urges of the back-seat riders. These cries and pleas were silenced in the lunch room of the Barbara Worth Hotel in El Centro at 2 p. m. Following this a run was made into Mexicali, where in Mexican environment we meditated upon the very apparent difference in the living conditions and customs of the natives. The Speaker terminated the visit by speeding us back to El Centro to the tunes of guitar-strumming street urchins.

At 7 p. m. thirty-four members of the Imperial County Society convened for their monthly meeting. A fine group of men and a 100 per cent society, having all eligible physicians as members. Their treasury has a sufficient balance to pay the 1937 State dues, so no assessment is being made on the members for this year.

On Friday morning, through icy roads, and snow, strange as that does seem, we began our return trip, leaving Doctors Roblee and Emmons at Riverside, and President Pallette was left in Los Angeles in time for late afternoon office hours. Your Secretary continued on to Santa Barbara.

On Saturday, January 9, the Scientific Program Committee and the officers of all scientific sections met for the purpose of reviewing and approving the program for the Del Monte meeting. Suffice it to state at this time that the 1937 scientific program will be most attractive and will impel a large attendance. Detailed announcements will appear in subsequent issues. Sunday, January 10, return drive was made to San Francisco.

Would that every member could visit all of our county units. He would become deeply impressed with these fellow members. He would gain a pride and feel an increased appreciation for his organizational affiliation.

COUNCIL MINUTES

Minutes of the Two Hundred and Forty-Ninth Meeting of the Council of the California Medical Association

Pursuant to the call of the Chairman, the Council of the California Medical Association convened in special session in the Sir Francis Drake Hotel, San Francisco, on Saturday, January 16, 1937, at 9:30 a. m.

1. **Roll Call.**—The meeting was called to order by the Chairman, with the following members present:

President Edward M. Pallette, Speaker William W. Roblee, Chairman Morton R. Gibbons, Councilors Karl L. Schaupp, Calvert L. Emmons, Carl R. Howson, Henry J. Ullmann, Axcel E. Anderson, Alfred L. Phillips, C. E. Schoff, Henry S. Rogers, William H. Kiger, J. B. Harris, C. O. Tanner, T. Henshaw Kelly; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, General Counsel Hartley F. Peart and his associate, Howard Hassard.

Mr. Lionel Browne was present during the discussion of the report of the Committee of Five. Honorable Walter McGovern and Honorable Melvin I. Cronin addressed the Council.

Absent: President-Elect Morrow (on account of illness) and Councilors Hamlin and Wilson.

2. **Scientific Committee Report.**—A report of the meeting of the Committee on Scientific Work, held on January 9 at Santa Barbara, was given by the Secretary.

It was moved by President Pallette, seconded by Councilor Rogers, that, in accordance with the recommendation of the Committee on Scientific Work, the third general meeting be devoted to a discussion of health and hospital insurance. Carried.

3. **Papers for Publication in Journal.** — After discussion of the advisability of publication of a paper submitted for publication in the JOURNAL, it was moved by President Pallette, seconded by Councilor Rogers, that the paper as presented be published. Carried.

After consideration of the paper "Practice of Medical Problems in Hospitals," the Council agreed that there would be no objection to its publication in the JOURNAL under the names of the authors.

4. **Exchanges.**—Members in the southern part of the State, in an endeavor to build up the Reference Library of the Los Angeles County Medical Association, requested the Council to give consideration to obtaining two exchange copies of medical journals.

It was moved by Editor Kress, seconded by Speaker Roblee, that editors of state medical journals be requested to grant duplicate copies of their journal in exchange for two copies of CALIFORNIA AND WESTERN MEDICINE, one copy of the exchange journals to be sent to the San Francisco County Medical Society Library and one copy to be sent to the Los Angeles County Medical Association Library. Carried.

5. **California Medical Economic Survey.** — Deputy Attorney-General Lionel H. Browne, representing the State Board of Health, cosponsors of the California Medical Economic Survey, gave a résumé of the terms and conditions under which the survey had been conducted and the responsibilities of the State Board of Health and the California Medical Association. Deputy Attorney-General Browne read the resolutions relating to the survey adopted by the Board of Health at a special meeting thereof.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Rogers, that the Council of the California Medical Association approves the resolutions adopted by the State Board of Health. Carried.

6. **Legislation.** — Junius B. Harris, Chairman of the Committee on Public Policy and Legislation, gave a résumé of the present legislative activities and informed the Council of the committees appointed by the Senate and Assembly having to do with public health and medical practice.

The Secretary presented correspondence from Doctor Russel V. Lee of Palo Alto, together with proposed law for the control of venereal diseases. After full discussion, on motion of Editor Kress, seconded by Councilor Kiger, the following resolution was adopted:

WHEREAS, The federal, state, and local public health agencies have authorized and are putting into operation carefully prepared plans for a campaign for the prevention and treatment of syphilis and gonorrhea; and

WHEREAS, The utilization of federal funds in this work necessitates centralization of state procedures in and through the California State Board of Health; now therefore be it

Resolved, By the Council of the California Medical Association that it is in full sympathy with all rational and practical efforts to solve the problem of syphilis and gonorrhea; and be it further

Resolved, That this Council suggests that all groups and citizens who wish to coöperate in the work, do so in conjunction with the State Board of Health.

It was moved by Councilor Kelly, seconded by Councilor Ullmann, that the Council commends the San Francisco *Daily News* for its attitude toward the present campaign and publication of articles dealing with venereal diseases. Carried.

It was the consensus of opinion that the Code Commission's revision of the medical practice laws should be handled by the Secretary of the Board of Medical Examiners.

7. **Legal Counsel.**—The General Counsel reported on the complaint filed by a taxpayer in Kern County against the Board of Supervisors regarding the building of a branch hospital at Delano; and contempt proceedings about to be filed against the Supervisors for violation of the injunction in the case of *Goodall* vs. *Brite*. Mr. Peart also reported on proposed amendments to the county hospital bill, definition of indigency, amendments on county hospital legislation.

8. **Public Health and Welfare.**—The Secretary presented correspondence from the American Medical Association and resolution from the Illinois State Medical Society regarding the United States Public Health Service. No action was taken pending the establishment of policies by the American Medical Association, and the entire matter was referred to the Executive Committee.

President Pallette called to the attention of the Council two statements which will appear in the January 16 issue of the *Journal of the American Medical Association* regarding health welfare and coöperation with State and local agencies. The formulation of a policy was referred to the Executive Committee.

9. **Hospital Insurance.** — Discussion was had of the extension of the Intercoast Hospitalization Association and the rider attached to the policy of that Association.

It was moved by President Pallette, seconded by Speaker Roblee, that the entire matter of the Intercoast Hospitalization Association be referred to the next meeting of the Council and that in the meantime the Secretary and the Chairman of the Executive Committee contact the president and other officers of the Intercoast Hospitalization Insurance Association and secure definite information. Carried.

10. **Retired Memberships.** — In accordance with provisions of the by-laws, the Secretary presented retired membership data signed by the respective county medical societies.

It was moved by Councilor Schaupp, seconded by Councilor Ullmann, that Charles D. Ball, M. D., member of the Orange County Medical Society, be granted retired membership in the California Medical Association. Carried.

It was moved by President Pallette, seconded by Speaker Roblee, that Charles G. Levison, M. D., member of the San Francisco County Medical Society, be granted retired membership in the California Medical Association. Carried.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Schaupp, that Cullen F. Welty, M. D., member of the San Francisco County Medical Society, be granted retired membership in the California Medical Association. Carried.

11. **Noon Recess.**—At this point a recess was taken for luncheon with the Legislative Committee of the two State Dental Associations.

12. **Call to Order.**—The meeting was called to order after the noon recess, with the following members present: Doctors Pallette, Roblee, Gibbons, Schaupp, Emmons, Howson, Ullmann, Anderson, Phillips, Schoff, Rogers, Kiger, Harris, Tanner, Kelly, Dukes, Kress, Warnshuis, and Mr. Peart and Mr. Hassard.

13. **Hospital and/or Medical Insurance.**—T. Henshaw Kelly, Chairman of the Committee on Hospital and/or Medical Insurance, presented the proposed act covering medical service association for discussion by the Council. The bill was considered section by section and certain amendments made.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Rogers, that the bill as amended be approved and that the Legislative Committee proceed to have it introduced forthwith.

A roll call vote was then taken and the motion was unanimously adopted.

Doctor Harris called the attention of the Council to the medical service bill introduced at the present session of the Legislature by Senator Dan Williams. It was the sense of the Council that this bill should be discussed at the Annual Conference of County Secretaries.

William H. Kiger, member of the Special Committee on Hospital Service Insurance, outlined the activities of the hospitals in the southern part of California and asked Doctor Kress to read the bill to govern hospital insurance as proposed by the southern hospitals.

The bill was read and discussed, and on motion of Councilor Schaupp, seconded by Councilor Phillips, the bill on hospital insurance as presented was approved, and Doctor Kiger was authorized to arrange for its introduction at his discretion. Carried.

14. **X-Ray Legislation.**—The x-ray bill as presented by the Pacific Roentgen Club was referred to the Legislative Committee for report at the February 7 meeting of the Council. Carried.

15. **Adjournment.** — There being no further business to come before the Council, adjournment was taken at 5:50 p. m.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

California Code Commission: Recodification of the Medical Practice Laws

A former legislature created a Code Commission for the purpose of rewriting and codifying existent laws.

When one reads some of the laws as they were drafted and passed, wonderment grows as to verbiage, verbosity, and interpretation. Why confusion results is easy to explain. Why attorneys, and even courts, arrive at differing conclusions is not hard to understand. But what else could be expected in view of the process that governs legislation procedure. To correct these errors, to clarify meaning and to correct errors in grammar, this Code Commission was created.

The Code Commission has been engaged in its task for several months. It has been very considerate in inviting interested groups to review its redrafts. After it had rewritten the medical practice law the Commission invited our Association to confer with a representative of the Commission and give advice and express opinion in order that the original intent and meaning of each section might not be altered.

The Council appointed a special committee, as did also the Board of Medical Examiners. These two committees and a representative of the Commission met and spent some twenty hours in checking every line and word of the redraft with the original law and completed the revision of this law. It is believed that it is now in a form that will be readily understood and interpreted. There was no authority to make any changes in basic provisions or intent or to include any amendments. Clarification was the sole objective. Verbosity was eliminated and grammatical construction was improved.

The Legislature will now approve this redraft, thereby placing in our statute code a well-constructed law. The following members rendered this service: Doctors J. B. Harris, M. R. Gibbons, Sr., Howard Morrow, T. Henshaw Kelly, State Secretary, Mr. Hartley Peart and his associate, Howard Hassard, for the Association, and Doctors C. E. Schoff, C. L. Abbott, C. B. Pinkham, and Mr. Lionel Browne for the Board of Medical Examiners.

Automobile Versus Airplane Deaths

An airliner with twelve passengers crashed and twelve deaths result. Extra newspapers, radio bulletins, three investigations, and congressmen gaining publicity through promises of introducing bills to create other investigations and useless laws. Papers blazing with many point-size headlines dealing with this unfortunate "crash," in a sixth or seventh page column item in small type report 1,061 deaths on the streets in one city caused by automobiles. Yet no comment follows on this slaughter on streets and highways.

Airplane travel is safe. It is safe from a mechanical standpoint because these plane accidents do not result from mechanical or plane failure. Plane travel is safe from the physical fitness of pilots' standpoint because competent medical advisers and examiners have formulated physical standards for pilots. Airplane travel has a danger factor from an operating standpoint because operating officials are neglecting two important factors—judgment failure and weather conditions.

Judgment failure or man failure looms up when dispatchers and pilots ignore the elements, think they can ride through and delay in making emergency landings, or issuing grounding orders. Judgment man failure also occurs when the pilot runs into a blind spot, loses his course and bearings and continues to fly on at an altitude that is lower than the highest ranges on his course. Pilots should be drilled and drilled so that they know the peak altitudes of their terrain and be schooled and schooled that in emergencies or when encountering visibility that is nil that they shall immediately commence climbing to an altitude at least 1,500 feet higher than the highest peak on their course or terrain and maintain that altitude until they regain their bearing and necessary visibility. Observance of this rule will prevent crashes into sides of mountains. Storms and adverse flying conditions are reported on every course. The alert pilot should have courage to turn back or ground rather than to take a chance on riding through. If he does not, the operating dispatcher ought to exercise his authority and either issue orders to turn back or ground the plane in a safe emergency landing field. We have commended one pilot for taking us back and another for making an emergency landing even though we were grounded for four hours. Airplane travel is safe and will be safer when operating officials observe these two emergency rules.

As to the slaughter by automobiles, that will continue until legislators ignore the political pressure and influence of manufacturers and dealers and enact new laws governing automobile driving. What is needed is a law fixing standards of physical fitness that must be met to obtain a driver's license. A paper reporting a plane accident had an item imparting that an automobile driver was receiving a blind man's pension each month. Think of it!—vision so poor as to qualify for a blind person's pension, yet given a license and permitted to drive an automobile!

Another law or amendment is required to give police and patrol officers authority to revoke drivers' licenses of all who violate traffic laws. Leniency has generated disdain for traffic laws and encouraged violations.

Some day public opinion may overcome the mercenary policies of automobile manufacturers and dealers and bring about legislation and enforcement.

* * *

SAFER IN AIR THAN ON HIGHWAYS

When one considers that the Sunday night accident to a United Air Lines plane, near Saugus, was the first serious crash in eleven years of the company's operations between San Francisco and Los Angeles, the tragedy is softened somewhat; and the growth of the flying habit among Americans is explained. Over the Coast route, this line has made 20,000 flights, totaling 7,000,000 miles, without a mishap to passengers, in multimotored planes, until this exception occurred.

On the same day, twelve lives were lost in highway traffic in Los Angeles County, with a total of more than one thousand victims for the year.

Thorough investigation was made of the air disaster, and every known remedy will be applied to prevent repetition. If the same degree of preparation and care should be directed to the prevention of motor-car accidents, better progress would be made toward safety on streets and roads.

Perhaps, after all, the greatest factor in continuing the terrific traffic toll is public apathy due to the average individual's smug belief that motoring may be dangerous for other persons, but not for him.—*Long Beach Press-Telegram.*

San Mateo County Society Sets an Example

The following communication reflects a commendable example for all of our county societies. Such contacts with boards of supervisors is bound to be productive of good, better understanding, and mutual satisfaction. Every county medical society should make similar contacts with their supervisors and legislators. We congratulate and

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

commend the members of San Mateo County in this well-directed activity. They are discharging a county society function that is quite important.

* * *

SAN MATEO COUNTY MEDICAL SOCIETY

December 31, 1936.

To the Honorable Board of Supervisors of San Mateo County, Redwood City, California.

Gentlemen:

Since the recent election there has been a feeling on the part of the members of the San Mateo County Medical Society that our organization should communicate with you gentlemen to transmit our ideas in regard to the County Department of Health and Welfare. Informal discussion with some of your board confirmed our feeling that you might like to hear from us and have our Society form a standing committee which would be ready at any time to coöperate with your board.

It is our opinion that you gentlemen, constituting as you do the first Board of Supervisors elected at large according to the provisions of the county charter, are going to stand for improved governmental conditions in our county. As citizens of the county we, too, want good government, and as physicians who helped to formulate the health and welfare provisions of the charter, we feel vitally interested in these provisions.

As a body of medical men and women who are in almost constant intimate contact with public health and welfare matters, we respectfully submit the following suggestions which we hope will prove of value when the health and welfare provisions of the charter are under consideration by your board. We should like to have it understood at the outset that it is not our desire to criticize anything that has been done in the past. We offer these suggestions exactly as they might have been offered when the charter first went into effect.

The administrative head of the county government is a highly important official whose appointment is entirely in the hands of your board. Under his jurisdiction the county executive has, among other departments, the Department of Health and Welfare, and its efficient operation is dependent upon his administrative ability. The charter calls for the appointment by the executive of an advisory board of health and welfare, whose duties primarily are to aid the executive in selecting a director of public health and welfare, to advise with the executive, the director, and the various department heads in this division. The functions of this board are of great importance, and a good executive will select such a board with careful consideration and, having selected it, will make frequent use of it and discuss freely with its members the policies and operations of the department.

We feel that the position of director of public health and welfare should be filled by a physician who is sufficiently mature in years to have gained experience in dealing with people, that he should have executive ability, that he should be a man who meets with the approval of the physicians of the county, and that he should have some special training and experience in this type of work. The modern trend in medicine is to attempt to have every physician consider himself a volunteer health officer, and to have him working hand in hand with the Public Health Department. It follows that no public health director can efficiently run his department without close coöperation on the part of the physicians in his community.

An important position under the Department of Health and Welfare is that of superintendent of the county hospital. Again it is necessary to have a man who enjoys the confidence of the medical profession. Most of the medical and surgical service at the hospital is rendered gratis by the doctors of the community, which, we feel, results in standards of service higher than they would be if physicians were employed to do the work. Furthermore, this service, if paid for by the county, even at minimum rates, would be a tremendous burden to the taxpayer. Further requisites of the hospital superintendent are that he should be a competent medical man and should possess executive ability. He should run the hospital as economically as possible in keeping with good hospital care.

The Department of Social Service is responsible for the admission of patients to charity service in the hospital and clinics, and for the care of the poor, the blind, etc., in the home. It is not an uncommon practice on the part of certain people to attempt to get free hospital and medical care at the expense of the county even though they could, by no stretch of the imagination, be called indigent. This is an unfair burden on the respectable citizen, who pays taxes to maintain these institutions and who at the same time must provide for his own care and for that of his family in case of accident or illness. It is also unfair to the doctors who contribute their time and skill in an effort to provide proper care for those who are supposed to be indigent. It is probable that every county in the State of California has at some time, in the course of its history, had county officials who made a practice of repaying political favors by influencing the Social Service Department in such manner that the department would make possible the admission of non-indigents to the county hospital. Obviously, the taxpayer and the doctor pay the bill. Another practice, unfortunately only too common, has been the appointment of political favorites to the positions of investigators in the department. It is the feeling of the County Medical Society that such policies are not consistent with good county government.

The superintendent of social service should be a person who has had wide training and experience in the work. He or she should possess real business ability, and at the same time have enough humanitarianism to treat decently those who are really in need. The superintendent should be free of all political pressure, should be able to appoint his own workers, and should be directly answerable to the director of health for his results.

Referring again to the Department of Public Health, we would like to suggest that a concerted effort be made to bring all of the people of the county under this department by inducing the cities to abolish their local departments and to contract their health work to the county. The county department serves only a relatively small fraction of the population, a condition not consistent with economical administration. If the various city officials have confidence in the County Department of Public Health, they should be glad to eliminate their local departs. We feel that you gentlemen have a unique opportunity to restore confidence in the government of our county and so make possible for unification of public health work under one head, the Director of Public Health and Welfare.

In summary, we feel that we have at present a Board of Supervisors, composed of men of sound business sense. In the administration of county government it is our opinion that where competent executives are placed at the head of the several departments, it is unnecessary for the Board of Supervisors to feel called upon to dictate the policies of, and make appointments in, these departments, maintaining, of course, its power of veto. It would seem that unnecessary confusion would be eliminated and adverse publicity avoided if the board felt sufficient confidence in its department heads to refer the complaints of constituents to the department involved. We feel sure that you gentlemen will agree with us when we say that political patronage is not consistent with good county government.

In this communication our motive has been to lend helpful suggestions. As physicians and fellow taxpayers we are interested, on the one hand, in the efficient operation of our County Health Department and all of its branches, and on the other hand, in the economically sound administration of county government. It is with the hope that we may coöperate with the Board of Supervisors toward these ends that this communication is respectfully submitted.

Very truly yours,

THE SAN MATEO COUNTY MEDICAL SOCIETY.

Objectives of the California Heart Association

The aim of the California Heart Association shall be the better education of both the medical profession and the general public in heart disease and its resultant disability:

Medical Activities

1. Arrange for diagnostic clinics and postgraduate education work in rural areas.
2. Seek representation of cardiac problems on programs of local county medical association meetings.
3. Sponsor two major yearly symposia on heart disease, one in San Francisco and one in Los Angeles.
4. Provide some method by which physicians may obtain postgraduate consultation on individual problems within the limitations of the standards of the American Medical Association and where direct consultation service is not available.
5. Foster a wide membership in state and national heart associations.
6. To accumulate and have available for all physicians in the State the latest proved methods for the handling of cardiac disease.
7. To promote uniform criteria for diagnosis and records among the general profession.
8. To study the etiology of cardiac and circulatory disease by accumulation of data and to act as an authorita-

tive source in dispensing proved scientific knowledge in this field.

9. To foster and guide worth while research in the field of cardiovascular disease.

Public Relation Activities

1. To coöperate with public health departments, school health departments, social and health agencies, and other organized groups in all constructive efforts to present information tending to aid in the cure and prevention of heart disease.

2. To coöperate with industrial and insurance companies relative to the employment, hazards, and liability of persons with circulatory defects.

3. To prepare educational exhibits for presentation to the public.

4. To present approved heart educational material to the general public by means of newspaper releases, radio programs, moving-picture films, news letters, and pamphlets.

General Activities

1. To combat misinformation about heart disease and make every attempt to combat quackery.

2. To consider the provisions made for convalescent cases, not ill enough to require hospital care, but not well enough to work and to foster a rehabilitation program.

3. To attempt to arrange a proper evaluation of the status of the heart in industry and employment.

4. To attempt to arrange the proper evaluation of the insurability of heart disease.

5. To properly evaluate the natural resources of California as applied to the treatment, the care, and the residence of those people afflicted with heart disease, and those other people from other localities who select this state as their place of residence.

6. To investigate and promote all proved methods for the institution of preventive measures in heart and circulatory disease.

Federal Resettlement Administration

This federal agency was formed to grant aid to farmers in drought-stricken areas. The Administration purposes to aid agriculturists to rehabilitate their farms or gain a new location for their agricultural labors. Clients of this Administration are the recipients of loans from the Government.

In the course of its activities this Resettlement Administration has prepared articles of incorporation and by-laws under which, by coöperative methods, the clients can organize for the purpose of providing medical care for themselves and their dependents. Such a corporation has been formed in North Dakota. Now the information at hand indicates that the forming of a similar corporation is contemplated by Mrs. R. B. Maycock, Chief of Home Management Section, and Mr. D. G. Hildebrand, Supervisor of Los Angeles County, and that they have "set out to find some hospital group or clinic that will undertake to provide medical service for clients of the Administration in Los Angeles County.

The articles of incorporation provide, among other things:

To associate its members together for their mutual benefit and to further the rehabilitation of said members and to that end to engage in any activity involving or relating to the obtaining for its members of medical and dental treatment and services and any surgery, nursing or hospitalization, necessary or convenient thereto.

. . . and to make provision for the payment of and pay bills rendered to its members by physicians and dentists. . . .

In North Dakota, physicians are asked to render these services for a fixed fee, and physicians unwilling to cooperate are being listed as "ineligible"—black-listed.

Here, then, is found another plan of bargaining for medical care for federal clients under terms and conditions prescribed by the lay group. At present no approach has been made to accredited representatives of our profession. Probably the "ticket" will be written and then the members of the profession will be asked to underwrite it. How long will it be ere federal and state representatives will learn the wisdom of first consulting with medical representatives before they formulate their plans and procedures for providing medical care?

COMPONENT COUNTY MEDICAL SOCIETIES

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Frank MacDonald, on November 17, 1936, at the Auditorium on Twenty-ninth and L streets. Some seventy-two members and guests were present.

The paper of the evening was given by Dr. W. W. Cross of Oakland, on *A Review of Four Hundred and Seventy Cases of Pyelonephritis.* The speaker stated this disease may occur from the ages of three to seventy-six, and is three times more common in females than males. The commonest organism found, in the order of their frequency, are colon bacilli, staphylococcus, and streptococcus. Pyelonephritis usually occurs in the course of a general infection, so the primary focus must be sought elsewhere. The bacteria may be carried to the kidneys in three ways—by the blood stream, through the lymphatics, or ascending from mucous membranes lower down the tract. Ptosis, strictures, and obstructions of other types may serve as exciting causes through interference with proper urinary drainage. Microphotographs, beautiful because of the manner in which the stains brought out the details, were shown, comparing normal and pathologic structures.

The paper was discussed by Doctors Hale and Beach, who, together with Doctor Isoard, thanked the speaker for his splendid presentation of the subject.

The report of the Board of Directors was read. Doctor MacDonald stated lodge practice violated at least five of the Principles of Medical Ethics as applied to contract practice, and presented the following resolution from the Board of Directors for action by the Society:

WHEREAS, Certain lodges, orders, and fraternal organizations provide medical services as an inducement to membership in these organizations and

WHEREAS, In the opinion of the Board of Directors of the Sacramento Society for Medical Improvement, the sale of such medical services through contracts with private physicians constitutes the practice of medicine; therefore be it

Resolved, That such practice of medicine by lodges, orders, and fraternal organizations be disapproved by the Board of Directors of the Sacramento Society for Medical Improvement; and be it further

Resolved, That the above resolution shall become effective only if it is endorsed by the majority of individual members at the next regular meeting of the Sacramento Society for Medical Improvement.

Doctor Reardan moved that the resolution be laid on the table. Seconded by Doctor Vance.

Discussion:

Doctor Teall asked, "Is this an ethical question or one of political politics? Will the Code of Ethics apply equally to violations by old-established men as well as by newer members of the Society?" He asked for a definite policy to guide the younger men.

Doctor Dozier asked for instructions as to how the Board of Directors should act in prosecuting violations of the Code of Medical Ethics.

Doctor Hale: This is an old and moot question which has been inherited from the past. This type of practice is unethical, but since we are divided on it, it should be laid on the table. If someone resigns, before night another doctor may seek the appointment or else an osteopath with an M. D. degree will take it or else new doctors may come in and take it. I recommend a gradual process to prevent new evils and in time to correct the old even as in correcting the county hospital situation here.

Doctor Lawson: I ask for consistency. We have disapproved the Mutual Benefit Health and Accident Association and approved the Intercoast Hospitalization Insurance Association. There is no justice in acting definitely regarding certain orders and tabling action against others in the same category.

Doctor Isoard: On account of agitation for State medicine, let the problem of lodge practice be undisturbed.

Doctor Reardan: A new member, in the past, once tried to gain admission to the Society, so he resigned his lodge connections and immediately a member of the Society took over the work.

Doctor Schoff: The Board of Directors have been zealous in enforcing the Code of Medical Ethics, for which they should be complimented. Harmony should prevail now because the action of the Sacramento Society for Medical Improvement, at the last meeting of the State Legislature, was chiefly responsible for defeating Senate Bill No. 454.

Upon putting the motion to a vote to table the matter, it carried—42 to 14.

The report of the delegates to the State meeting, by Doctor Hale, stated the delegation showed a definite trend to the right in dealing with economic problems and by their voting. State dues were fixed at $15 by the House of Delegates.

* * *

The annual business meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Frank MacDonald, on December 15, 1936, at the Auditorium on Twenty-ninth and L streets. Thirty-seven members were present.

The financial and membership report of the secretary was read. A motion was made, and seconded, that the dues be $20 for 1937. The motion was lost. A motion was made, and seconded, that dues be $15; also was lost. A motion was made, and seconded, that the dues for 1937 be $17.50. The motion was passed.

The following were elected as members on the Board of Directors for 1937: Wallerius, Schluter, Van Den Berg, Cook, Dozier, Ankele, Kanner, Christman, and Fanning.

Doctor MacDonald was unanimously elected to serve as delegate with Doctors Hale and Scatena for 1937. Doctor Pollock was elected to serve as alternate with Doctors Cook and Christman for 1937.

Dr. Glenn E. Millar was nominated and elected secretary-treasurer of the Sacramento Society for Medical Improvement. NORRIS R. JONES, *Secretary.*

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PLACER-NEVADA-EL DORADO-SIERRA COUNTIES

The Placer County Medical Society met at the Freeman Hotel Saturday evening, January 9. The meeting was called to order by President C. E. Lewis at 8:15 o'clock. In addition to President Lewis, there were present the following members and visitors:

Members—Doctors E. E. Lundegaard, L. B. Barnes, Daniel L. Hirsch, Robert A. Peers, Ray C. Atkinson, Mildred E. Thoren, Max Dunievitz, W. A. Vinks, D. M. Kindopp, and C. C. Briner.

Visitors—Mr. W. F. Higby of San Francisco, executive secretary of the California Tuberculosis Association, and Miss Lu Crandall of Auburn, Public Health nurse.

This being a meeting devoted to the subject of tuberculosis control, the secretary, at the request of President Lewis, gave a short address on the essentials in the control of tuberculosis and discussed the proposed plan of the Placer County Tuberculosis Association's campaign for tuberculin-testing school children of Placer County.

The secretary introduced Mr. W. F. Higby, who gave a history of the antituberculosis movement in California since 1904 to date, outlining the various steps taken by the California Tuberculosis Association between these dates. Mr. Higby stated that it is the policy of the California Tuberculosis Association to work in coöperation with the various county medical societies. He outlined the tuberculin-testing programs which are being carried on in forty counties in California, always in coöperation with Organized Medicine.

Following Mr. Higby's address, a resolution of endorsement of the tuberculin-testing program of the Placer County Tuberculosis Association was adopted.

Doctors Atkinson and Briner exhibited a moving-picture film relating to childhood tuberculosis and tuberculin-testing.

The meeting then adjourned for refreshments.

ROBERT A. PEERS, *Secretary.*

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SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital on Tuesday, December 1, 1936.

The meeting was called to order by the president at 8:15 p. m. About sixty members and guests were present.

A letter from Doctor Card was read and details regarding the joint meeting with the Riverside County Society on January 6 explained. The joint meeting for the officers of the California Medical Association will replace the regular meeting in January.

The program of the evening was given as a medical clinic by Dr. Phillip A. Corr of Riverside.

The following cases were presented and a short differential diagnosis given, preparatory to detailed discussion of treatment by Doctor Corr:

Diabetes Mellitus. Simple office management was stressed and protamine-insulin briefly discussed.

Pernicious Anemia. Various preparations used; cost and potency compared.

Pellagra. This case formed the basis of an excellent discussion of vitamins in general.

The cases were discussed by Dr. G. S. Landon of San Bernardino, Dr. Harold Gentry of Redlands, Dr. J. W. Neighbor of Arrowhead Springs, and was followed by a most enthusiastic and stimulating general discussion.

The meeting adjourned at 10:20 p. m., following which refreshments were served. A. E. VARDEN, *Secretary.*

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SAN MATEO COUNTY

The San Mateo County Medical Society met on December 23, 1936, in the banquet room of the Benjamin Franklin Hotel.

The guest speaker of the evening, Dr. Stanley Mentzer, presented a most illuminating discussion on the most recent advance in the diagnosis of gall-bladder disease, involving a new concept—obstructive cholecystitis. Doctor Mentzer's talk was illustrated with lantern slides, and was discussed by Dr. Carl Hoag and Dr. James Rinehart.

The secretary read a resolution pertaining to the attitude of the San Mateo County Medical Society concerning the corporate practice of medicine. A motion was made and seconded that the resolution be adopted in its entirely and was passed unanimously.

Dr. William Murphy read a letter that had been prepared by the Committee on County Affairs to be delivered to the Board of Supervisors of San Mateo County. Following the reading of the letter, a motion was made and seconded that the committee be empowered to submit the letter to the Board of Supervisors, with the approval of the San Mateo County Medical Society. This motion was passed unanimously.

Doctor Wade Macomber read a letter he had received from the United States Government concerning examination, vaccination, and typhoid inoculation of members of the Civilians' Military Training Camp, such medical service to be contributed by the physician. Dr. Frank Holmes Smith felt that the Civilians' Military Training Camp was a worthy cause, and agreed to take over the work for San Mateo County.

The chairman made an announcement concerning the nurses' fund for Mills Hospital and the San Mateo Community Hospital, following which a collection was taken. The collection amounted to $40, and the secretary was directed to withdraw $10 from the treasury as an additional contribution.

The secretary read a letter he had received from Dr. H. Henderson concerning her work in Daly City in regard to immunization and vaccination of school children. Following open discussion, the secretary was directed to write to Doctor Henderson, stating the facts in the case.

Dr. William Murphy, chairman of the Committee on Vaccination and Immunization of School Children, gave a report. The motion was seconded and carried to accept the report as read.

Dr. Carl Hoag, chairman of the Committee on Hospital Service Insurance, gave a report from his committee. The report was approved with recommendations concerning the policy of the San Mateo County Medical Society in connection with hospital service insurance in the coming year. Dr. Harold Hill made a motion that the committee continue to function and report to the Society as progress is made in the development of hospital insurance in the Bay counties. The motion was seconded, and carried.

A report was heard from Dr. William Knorp, chairman of the Public Health Committee. Doctor Knorp mentioned particularly the work that has been done and the program outlined by the San Mateo County Tuberculosis and Health Association. On motion, unanimously passed, the report was accepted.

The election of officers resulted as follows: Frank Gregory, president; Hartzell Ray, vice-president; J. Garwood Bridgman, secretary. Board of Directors—Olin M. Holmes, William Murphy, William Knorp, Erma Macomber, N. D. Morrison, Frank Gregory, and J. Garwood Bridgman. J. GARWOOD BRIDGMAN, *Secretary.*

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SANTA BARBARA COUNTY

The annual banquet meeting of the Santa Barbara County Medical Society was held at the El Paseo on Monday evening, January 11. Fifty-seven members and five guests were present.

At the conclusion of the dinner, Dr. P. A. Gray announced the results of the election of officers for the year: Irving Wills of Santa Barbara, president; Edward Lamb of Santa Barbara, president-elect; A. L. Mollath and Albert Missall, both of Santa Maria, vice-presidents-at-large; William H. Eaton of Santa Barbara, secretary-treasurer. Council—Hugh Freidell and H. E. Henderson, both of Santa Barbara, and O. C. Jones of Santa Maria.

Amendments to the Society's by-laws were given their last reading, and were unanimously adopted.

Amendments to the Society's constitution were given their second reading, and were ordered held for their final reading and adoption at the February meeting.

Retiring President Gray reviewed briefly the work of the Council for the past year, complimenting the members upon their accomplishments; and he also expressed his appreciation and thanks to the members of the various committees for their splendid coöperation and services. He then introduced Dr. Irving Wills, the newly elected president.

Following a few introductory remarks, President Wills introduced the speaker of the evening, Dr. Alice Solomon of Berlin, Germany. Doctor Solomon's life work has been social service, and she gave an extremely interesting and instructive talk upon the social service work in France, England, and Germany, commenting on comparisons, and stressing the importance of this work in the future development of the human race. At the conclusion of the talk she answered pertinent questions, which brought to an end a very enjoyable evening.

WILLIAM H. EATON, *Secretary.*

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TULARE COUNTY

The regular December meeting of the Tulare County Medical Society was held, by invitation, with the Tulare-Kings Dental Association. A dinner at Motley's Café preceded the joint meeting.

The guest speaker of the evening was Dr. Herman Becks of the University of California. He presented the subject of *Bone Pathology or Biology in Relation to Dental Medicine,* profusely illustrating the talk with lantern slides and also showing a set of typical x-ray reproductions that are being used as a basis for diagnostic comparisons. KARL F. WEISS, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (18)

Alameda County.—Philip N. Baxter, Chelsea D. Eaton, George E. Koerber, Robert F. Legge, E. B. Leland. Floyd D. Lewis, Camille Mermod, Kenneth A. Nielson, William Henry Probert, Robert L. Redfield, Amy N. Stannard.

San Bernardino County.—Kenneth Harvey Abbott, Francis L. Crowley, Emmett Forde Kesling.

San Francisco County.—Reuben Herman Zumwalt.

San Joaquin County.—John T. Heavey.

Santa Cruz County.—Gordon Bunney, William Lawrence Young.

Transferred (1)

Leslie J. Seeley, from Siskiyou County to Shasta County.

In Memoriam

Green, Louis David. Died at San Francisco, January 14, 1937, age 55. Graduate of Denver and Gross Medical College, 1909, and licensed in California the same year. Doctor Green was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

Moffitt, Thomas William. Died at Hollywood, January 4, 1937, age 67. Graduate of Starling Medical College, Columbus, Ohio, 1893. Licensed in California in 1923. Doctor Moffitt was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✣

O'Connor, Thomas Charles, Jr. Died at Lodi, January 13, 1937, age 44. Graduate of the University of California Medical School, San Francisco, 1927, and licensed in California the same year. Doctor O'Connor was a member of the San Joaquin County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

Wagner, Henry Lewis. Died at San Francisco, December 27, 1936, age 77. Graduate of the Julius Maximilian Universität, Würzburg, Bavaria, 1884. Licensed in California in 1887. Doctor Wagner was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

Component Auxiliaries

Los Angeles County

A Christmas program featured the luncheon of the Woman's Auxiliary to the Los Angeles County Medical Association on December 22 at the County Medical building. Only about fifty members were present, but it was one of the most delightful meetings of the year. The choir boys from St. Thomas' Episcopal Church gave a beautiful selection of Christmas music, and the table decorations were particularly festive and attractive.

It was announced that $26 had been made at the recent party given by Mrs. Joe Zeiler in her own home, which sum will be used for circulating health plays among the schools.

Dr. Harlan Shoemaker announced plans for President Roosevelt's birthday ball, being sponsored by the County Medical Society, and asked the coöperation of the Auxiliary.

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Fresno County

On December 1 the Fresno Auxiliary to the California Medical Association held a card party in place of the regular meeting. The purpose of this party was to obtain funds to purchase subscriptions to *Hygeia.*

We are happy to report we were successful in obtaining fifty-five subscriptions. Thirty-five of these are pri-

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Robert M. Furlong, chairman of the Publicity and Publications Committee, Linden Lane, San Rafael. Brief reports of county auxiliary meetings will be welcomed by Mrs. Furlong and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

vate and twenty are to be placed around in the community in such places as large beauty parlors, three high schools, the State College, County Library and its branches.

Fifty persons attended the party, which was a very enjoyable affair.

MRS. KENNETH J. STANIFORD.

*

San Diego County

The regular luncheon meeting of the Auxiliary to the San Diego County Medical Society was held December 8, 1936, at the University Club. The president, Mrs. F. G. Lindemulder, conducted the meeting.

It was announced that the Medical Society Bulletin has given one full page for our use. Mrs. R. Emerson Bond will be editor for this page.

Posters are to be given to every member of the Auxiliary for use in the doctors' offices. The posters will tell of the radio programs sponsored by the American Medical Association.

Mrs. E. H. Christopherson announced work of the public relations group. Mrs. Elmo Crabtree held a quiz on *Hygeia,* with a review of the value of the magazine.

Members of the Auxiliary presented a play, "A Doctor's Christmas," written by Mrs. Mark Glaser, State Chairman of Hygeia.

ELIZABETH R. BOLFORD.

*

San Francisco County

The monthly meeting of the round table on *Causes and Cure of War* was held on Wednesday, January 6, at the County Medical Society building, under the leadership of Mrs. Fred H. Zumwalt. Dr. E. Guy Talbot, western secretary of the National Council for Prevention of War, gave a very enlightening and stimulating talk on *Can We Keep Out of War?* He answered that question by first showing the ever-growing trend toward a European war, with the United States involved. Dictatorships, the scraping of treaties, and the armament race, combined with the Spanish and Japanese situations, are bringing us nearer to a general conflagration.

Doctor Talbot stated that the causes of war are political, economic, and psychological, and that at the present time certain newspapers and magazines are building up an emotion of hatred, which was a great factor in the Spanish-American and World wars.

There are three important bills before Congress now that, if passed, would be a factor in the prevention of involving the United States in war. First, the bill to nationalize the munitions industry, that is, control by the Government. Second, to take the profits out of war, which is a bill presented by the Nye Investigation Committee. This committee found that for every three men killed in the World War, one millionaire was made. And third, a bill to strengthen the neutrality legislation. At present our neutrality bill expires in May, and it applies only to the embargo on implements of war. Doctor Talbot thought that it should also apply to raw materials, as oil, cotton, etc.

To close his talk, Doctor Talbot quoted a small line from Admiral Sims' article in *Freedom of the Seas,* which holds the kernel of the situation:

". . . a decent regard of humanity should be placed ahead of gold."

MRS. EDWARD M. LIPSETT.

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Santa Clara County

A luncheon was given by the Woman's Auxiliary to the Santa Clara County Medical Society on Monday, January 4, at the Hotel De Anza.

Dr. Dorothy Hazeltine Yates, assistant professor of psychology at San Jose State College, was guest speaker, her subject being *Psychology in Everyday Practice.*

Opposition to Forced Retirement Law for Physicians.—In a recent letter it was stated that a bill, termed the "Pomaret law," had been introduced in the French legislature according to which the members of all professions will be obliged to surrender their diplomas at the age of sixty-five and discontinue their work without any recompense in the form of a pension from the state. Violent opposition to such a proposal is appearing from all sides, and a medical journalist said that he would be eligible for retirement in three months and then either be ready for the soup line by 1939 or be obliged, like so many unemployed here in Paris, to earn a living by singing in the streets. Maurice Mordagne, the leader of the medical students' union, quotes such a letter received by him, in an article in the August 22 *Press médicale,* which reflects the reaction of the professors and medical journalists on the forced retirement bill. As to the faculties, Professor Villard of Montpelier is quoted as saying that the medical profession in France does not seem to have awakened to the potential dangers of such a bill if passed. Many physicians would be obliged either to die of hunger or seek asylum in a charitable institution. Another professor of the Paris Medical School who is familiar with conditions in smaller communities states that the applications of such a law would give temporary relief in an overcrowded profession only if some measures were adopted to reduce materially the numbers of licenses to practice granted annually. Professor Sergeant stated that every effort must be made to fight against the dangers of state medicine, which threatens to reëstablish the serfdom suppressed by the French Revolution.

The proposed law would affect not only members of the technical (physicians, dentists, architects, engineers) but also those of non-technical professions (teachers in liberal arts); hence Professor Fedel of one of the high schools is quoted as saying that many discoveries have been made by men and women above the age of sixty-five. The campaign to retire such individuals without pension at that age is being led by ignorant opportunists and recently naturalized foreigners. Why not apply such a law to holders of public offices, many of whom have rendered the state invaluable service after the age of sixty-five? Many physicians even at seventy are still active and in possession of all their faculties, thus rendering indispensable aid by their advice, gained through many years of experience, to younger colleagues. Professor Faure, gynecologist, cited instance after instance of men of seventy or over who were a contradiction of the statement made by the supporters of the bill that a surgeon ought not to operate after the age of sixty-five.

The syndicat (union) of physicians in the department of the Seine has recently studied the records of one hundred foreign students and physicians during a period of four months and found that the majority of those who applied for naturalization and permission to practice were granted these demands by the government. It would appear more necessary to subject such applications to a stricter control than to try to force retirement of older men. The latter, if the bill passes the legislature, would not help young graduates born in France or its colonies as much as it would the recent influx of foreigners.—*J. A. M. A.*

Congress of Physical Therapy, X-Ray, and Radium.—The second cruise of the Latin-American Congress of Physical Therapy, X-Ray, and Radium will take place March 9 to 28, to Guatemala City, Guatemala. One boat will sail from Philadelphia March 9, and another from New Orleans March 10. The congress has been arranged for the week of the inauguration of the president of Guatemala, and visitors will participate in the festivities at that time. There will be three scientific sessions—Tuesday morning and afternoon, March 16, and Saturday morning, March 20—at the National University School of Medicine, the intervening time to be spent in a trip to the interior of Guatemala. Physicians who wish to attend should apply to Dr. Norman E. Titus, 730 Fifth Avenue, New York, president of the congress, or to Dr. Cassius Lopez de Victoria, 1013 Lexington Avenue, executive director.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, Atlantic City, New Jersey, June 7-11. Olin West, M. D., 535 North Dearborn Street, Chicago, secretary.

California Medical Association, Del Monte, May 3-6. F. C. Warnshuis, M. D., 450 Sutter Street, San Francisco, secretary.

* * *

Pacific Coast Surgical Association, Seattle, Washington, and Victoria, B. C., February 24-27. H. Glenn Bell, M. D., University of California Hospital, San Francisco, secretary.

Medical Broadcasts*

American Medical Association

The American Medical Association and the National Broadcasting Company are presenting the second series of dramatized health broadcasts, under the title "Your Health." The first broadcast in the new series, the thirty-second dramatized coöperative broadcast under the title "Your Health," was given October 13. The theme for 1936-1937 differs slightly from the topic in the first series, which was "Medical Emergencies and How They Are Met." The new series is built around the central idea that "one hundred thousand American physicians in great cities and tiny villages, who are members of the American Medical Association and of county and state medical societies, stand ready, day and night, to serve the American people in sickness and in health."

The program will be on the Blue network instead of the Red, as originally announced.

The topics are announced monthly in advance in *Hygeia,* the health magazine, and three weeks in advance in each issue of the *Journal of the American Medical Association.*

The time of the broadcast is Tuesday afternoon, two o'clock, Pacific time.

* * *

San Francisco County Medical Society

A radio broadcast program for the San Francisco County Medical Society for the month of February is as follows:

Tuesday, February 2—KYA, 6 p. m.
Tuesday, February 9—KYA, 6 p. m.
Tuesday, February 16—KYA, 6 p. m.
Tuesday, February 23—KYA, 6 p. m.

* * *

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of February is as follows:

Tuesday, February 2—KECA, 10:30 a. m., The Road to Health.
Saturday, February 6—KFI, 9:15 a. m., The Road to Health.
Saturday, February 6—KFAC, 10:15 a. m., Your Doctor and You.
Tuesday, February 9—KECA, 10:30 a. m., The Road to Health.
Saturday, February 13—KFI, 9:15 a. m., The Road to Health.
Saturday, February 13—KFAC, 10:15 a. m., Your Doctor and You.
Tuesday, February 16—KECA, 10:30 a. m., The Road to Health.
Saturday, February 20—KFI, 9:15 a. m., The Road to Health.
Saturday, February 20—KFAC, 10:15 a. m., Your Doctor and You.
Tuesday, February 23—KECA, 10:30 a. m., The Road to Health.
Saturday, February 27—KFI, 9:15 a. m., The Road to Health.
Saturday, February 27—KFAC, 10:15 a. m., Your Doctor and You.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Wage Worker May Have Only One Federal Account Number.—Regardless of the number of employers a wage-worker may have, he can have only one account number or identification card for participation in the federal old-age benefits system under the Social Security Act, the Social Security Board emphasized today.

In issuing this statement, in response to inquiries from various sections of the country where workers having more than one employer have reported receipt of more than one identification card with differing account numbers, the Board advised each employee affected to take or send such cards to his local post office, where proper correction will be made.

The Board stated that this situation was due to the erroneous belief on the part of employees that they should file an application with respect to each job.

In emphasizing that an employee can have only one Social Security account number, the Board explained that the number of the account is permanent and is not affected by number of jobs engaged in or by changes in employment.

However, an employee who gives good reasons to the Social Security Board may have his account number changed.

The American Public Health Association's Sixty-Sixth Annual Meeting.—The American Public Health Association announces that its sixty-sixth annual meeting will be held in New York City, October 5-8, 1937.

A large eastern membership will receive that information with satisfaction. Not since 1921 has the Association met in the world's greatest city.

The sixty-fifth annual meeting took place in New Orleans in October. It attracted an attendance of 1,650 health authorities, representing forty-five states, Canada, Cuba, Mexico, and nine other foreign countries. The officers of the Association are reminding themselves of this registration in a state where the membership numbers less than one hundred and asking themselves what the registration will be in New York City, where the membership counts up to nearly five hundred within the city limits alone. An overnight's ride will enable more than one-half of the Association's five thousand members to attend the convention.

The National Organization for Public Health Nursing will meet with the American Public Health Association in 1937 for the first time. This large and important organization is expected to add another thousand to the registration lists.

The following related societies will meet with the Association as usual: The American Association of School Physicians; International Society of Medical Health Officers; Conference of State Sanitary Engineers; Conference of State Laboratory Directors; Association of Women in Public Health; and Delta Omega.

Dr. Reginald M. Atwater is the executive secretary of the Association, and the headquarters offices are at 50 West Fiftieth Street, New York, N. Y.

Social Security Allotments.—Federal grants totaling approximately $2,326,000 for public assistance in three states were announced by the Social Security Board recently. California receives $562,224.67 for aid to the needy blind and to dependent children; Connecticut, $525,035.18 for aid to the needy aged; and Washington, $1,238,731.06 for all three forms of assistance. California, as well as Washington, is among the twenty-four states coöperating in all of the public-assistance programs under the Social Security Act.

The amounts allotted to the states for each form of assistance and the number of individuals being aided under each plan, according to December estimates based on reports for the past nine months, are as follows:

State	Aid to	Federal Grant January 1 to March 31, 1937	Estimated Number of Individuals Aided in December
California	Blind	$222,075.00	4,600
California	Children	340,149.67	22,650

With about 1,117,200 needy aged, 32,160 needy blind, and 290,240 dependent children receiving assistance from combined federal and state funds, it is estimated from reports for the past nine months that in December a total of approximately 1,439,600 persons were being aided under these three provisions of the Social Security Act. Forty-three states (including the District of Columbia and Hawaii) have plans approved under the Act for one or more of these programs—forty-two for old-age assistance, twenty-eight for aid to the needy blind, and twenty-seven for aid to dependent children.

University Enrollments in the United States: Fall Semester, 1936-1937.—The following figures have been compiled from the recent article in *School and Society* by President Raymond Walters of the University of Cincinnati. The original statistics did not separate the University of California at Los Angeles from the total figures for the University of California.

California (Berkeley alone, 13,681)	22,122
Columbia	14,662
Minnesota	13,864
Illinois	12,919
New York University	12,893
Ohio State	12,334
Michigan	10,646
Wisconsin	10,071
Washington (Seattle)	8,909
Texas	8,281
City College of New York	8,196
Harvard	8,111
University of California, Los Angeles	6,935
Louisiana State	6,823
Pennsylvania	6,608
Nebraska	6,544
Hunter College	6,506
St. John's	6,226
Chicago	6,170
Cornell	6,115
Boston University	6,025
Pittsburgh	5,866
Northwestern	5,833
Pennsylvania State College	5,575
Temple University	5,478
Syracuse	5,440
Indiana	5,344
Iowa	5,321
Purdue	5,298
Oklahoma	5,272
Yale	5,133
Brooklyn	5,000
Iowa State	4,843
Alabama	4,657
Kansas	4,465
Michigan State	4,393
University of Southern California	4,370
Loyola (Illinois)	4,306
Missouri	4,294
Oklahoma Agriculture and Mechanical College	4,187
Western Schools Not Included Above	
Arizona	2,170
California Institute of Technology	805
College of the Pacific	885
Loyola (Los Angeles)	453
Montana	2,034
Occidental	678
Oregon	2,713
Oregon State	3,722
Pomona	813
Redlands	511
Santa Clara	445
St. Mary's	502
Stanford	4,023
Washington State	3,579
Whittier	467

Federal Grants to States for Assistance to Aged Persons.—Federal grants totaling $2,724,615.10 for public assistance in California, Hawaii, Maryland, Michigan, Nebraska, Rhode Island, and Vermont were announced by the Social Security Board today.

The grants cover the period from January 1 to March 31, 1937. The amounts allotted to the states, the form of assistance for which each grant was made, and the number of individuals being aided under each plan in January, based on reports received for the past ten months, are shown in the following table:

State	Aid to	Grant	Estimated Number of Recipients
California	Aged	$1,399,024.49	61,500

Health Officers' Training Course Scheduled at the University of California.—Continuing its drive to assist state health departments in training adequate public health personnel, the University of California has organized a second training course for sanitary inspectors, to be conducted on the University campus, under the direction of Dr. Karl F. Meyer, professor of bacteriology, from February 8 to May 4, 1937.

The first attempt in the United States to train sanitary inspectors on a large scale was made on the University campus during the summer of 1936, when forty-five men from nine western states and the Territory of Hawaii were put through a rigorous training course.

According to Doctor Meyer, the activities of the modern sanitary inspector are very broad. He must be able to meet men in all stations of life and be prepared to use diplomacy and ingenuity in enforcing public health laws. The training course is designed to develop a professional attitude and to teach the fundamentals of sanitation and the control of communicable diseases.

Eight weeks of the course will be given to lectures, conferences, laboratory practice, and group field trips. The final four weeks will consist of practical study in county and city health departments.

Certain entrance requirements will be enforced. Anyone interested in enrolling in the course may get further details from Karl F. Meyer, M. D., 3525 Life Sciences Building, University of California, Berkeley, California.

Prof. José Arcé of Buenos Aires Addresses San Francisco Chapter of Pan American Medical Association.—San Francisco had the honor of entertaining a distinguished visitor in the person of Prof. José Arcé of Buenos Aires, who arrived in this city on February 1 as the guest of the San Francisco Chapter of the Pan American Medical Association.

Rarely among confrères in any land has a physician attained the eminence in so many cultural fields and public welfare activities that is allotted this outstanding leader from South America's progressive republic. As president of the Argentine Chapter of the Pan American Medical Association, professor of surgery at the University of Buenos Aires, rector of the University, and senator of Argentine, Professor Arcé came to this country to promulgate medical Pan Americanism, to give scientific addresses and to conduct operative clinics before the chapters of New York, Washington, Los Angeles, San Francisco, etc. He also observed facilities for teaching graduate physicians in this country and addressed the students of the medical schools in the cities that he visited.

On Wednesday, February 3, at 8:15 p. m., Professor Arcé addressed the San Francisco Chapter of the Pan American Medical Association at the home of the San Francisco County Medical Society on "Preliminary Pneumothorax in Thoracic Surgery—The Importance of Its Use."

Thursday morning, February 4, at 9 a. m., he conducted an operative clinic under the auspices of the local chapter, performing a number of abdominal operations, including interventions on the gall-bladder, gastro-intestinal tract, and uterus. He also gave a scientific address before the faculty and students of the University of California Medical School on February 3 in Toland Hall, and addressed the faculty and students of the Stanford Medical School on February 5 in Lane Hall.

Professor Arcé was accompanied by his associates, Prof. Antonio Egeus and Prof. Adolfo Landivar.

Federal Old-Age Benefits.—With the Post Office Department now reporting receipt of 22,129,617 employee account number applications for participation in the federal old-age benefits program of the Social Security Act, a breakdown by states shows New York, with 3,433,631 applications, at the top of the list, the Social Security Board has reported.

This revised count of all applications on file in the 1,072 typing centers was made for the Board by the Post Office Department, and shows the totals for individual states. It supplements the Department's initial national total of 21,338,120 as of December 16, 1936, and represents an increase of 791,497 over the first report.

The Board stated that the present total of applications received should be considered as a progress report, for many thousands of Forms SS-5 are coming into post offices daily. The incompleteness of the present total is borne out by the fact that more than 24,000,000 workers are already represented on the employers' forms—known as "Employer's Application for Identification Number"—received at the Board's wage records office at Baltimore, Maryland.

Workers in seven of the leading industrial states account for more than half of the total applications, with New York first, and Pennsylvania second with 2,165,478. The next five are: Illinois, 1,680,059; Ohio, 1,469,837; California, 1,324,928; Massachusetts, 1,189,203; and Michigan, 1,109,435.

Totals by geographic divisions are: New England, 2,102,902; Middle Atlantic, 6,554,860; East North Central, 5,336,304; West North Central, 1,652,741; South Atlantic, 2,249,706; East South Central, 782,137; West South Central, 1,233,134; Mountain, 386,261; and Pacific, 1,730,117.

California Department of Industrial Relations: Report to Governor's Council—Safety Department.—The Industrial Accident Commission adopted the dusts, fumes, vapors, and gases safety orders, to be effective on December 28, 1936. These orders are the result of more than a year's study, many meetings of employers and employees with the Commission, and public hearings on the subject.

The orders require that all places of employment in which there is a hazard from dusts, fumes, vapors or gases shall be so arranged that these substances will either be prevented from being disbursed into the atmosphere breathed by the employees or, in those cases where this cannot be done, the employees will be furnished with approved respiratory equipment so that the air will be free from these substances. It is expected that by these means the dreaded disease silicosis will be eliminated from California.

The Mechanical Power Transmission safety orders and the revised logging and sawmill safety orders were also adopted, and became effective on January 1, 1937. Many meetings have been held between the employers, employees, and the Commission on this subject, and the orders as presented have the unanimous support of both employers and employees in the industries affected. These orders apply to every place of employment in which there is machinery and require that the belts, pulleys, sprockets, gears, shafting, etc., be guarded, so that there will be no hazard in their operation.

The revision of the mine safety orders is about complete. The orders are now in the hands of the printer, and the public hearings on these orders will be held in the near future.

The adopting of the new orders on dusts, fumes, vapors and gases, the adoption of the revised orders on logging and sawmills, and on mechanical power transmission and the proposed adoption of the mine safety orders will provide for places of employment the latest and best known means of preventing accidents in those industries and from the type of machinery covered by the orders.

Chairman T. A. Reardon and Commissioner Frank C. MacDonald of the Industrial Accident Commission appreciate the help that has been received from the employers and employees, and the independent consulting engineers who have given so freely of their time and knowledge in the preparation of these orders.

Federal Old-Age Retirement Benefits.—Under Treasury Department regulations, employers of one or more persons coming under federal old-age retirement benefits provisions of the Social Security Act are responsible for the filing of applications for an old-age benefit account number on behalf of their employees. The old-age benefits program went into effect January 1, 1937. . . .:

Regulations No. 91 of the Bureau of Internal Revenue provide that employers after January 1, 1937, must make periodic reports to the Bureau in which the account number of each employee will be listed as the means of assuring proper credit to the employee's account for wages earned and taxes paid.

"Inasmuch as employers will eventually have to make sure that every employee has a Social Security account number in order to make required reports to the Treasury, it is evident," the Board's statement said, "that the more employees who file their applications now, the fewer will be the cases in which the employers will have to take action later."

Circumstances under which employers are required to fill out and file applications for employees are defined by Treasury Decision 4704 as follows:

"If an individual who is an employee on the last day of the period covered by any information return (see articles 402 to 405, inclusive, of Regulations 91) has failed to file an application for an account number on Form SS-5, the employer shall file an application for the employee on or before the tenth day after such last day. If an employee has failed to file an application on Form SS-5 prior to the date he attains age sixty-five, or the date he dies before attaining age sixty-five, or the date he leaves the service of the employer, the employer shall file an application for the individual on or before the tenth day after such date."

An employee, according to the Treasury Department's decision, must advise his employer as to the number of his account as soon as he receives it.

First International Conference on Fever Therapy.—The First International Conference on Fever Therapy will hold its sessions on March 29, 30, and 31, 1937, at the College of Physicians and Surgeons, Columbia University, New York City. The first day will be devoted to the discussion of physiology, pathology, and methods of production of fever. Dr. Frank W. Hartman, Henry Ford Hospital, Detroit, Michigan, is chairman of the committee arranging this section of the program, and Dr. Charles A. Doan of Ohio State University is secretary.

The second day is to be spent in the consideration of miscellaneous diseases treated by fever, such as chorea, rheumatic carditis, ocular diseases, arthritis, leprosy, meningococcus infections, undulant fever, tuberculosis, tumors, skin diseases, etc. This session will be arranged by Dr. Clarence A. Neymann, 104 South Michigan Boulevard, Chicago, Illinois, with the assistance of Dr. Frank H. Krusen, Mayo Clinic, Rochester, Minnesota, as secretary.

The morning of the third day is to be devoted to the consideration of syphilis. Dr. Walter M. Simpson, Miami Valley Hospital, Dayton, Ohio, is chairman of this section, which has as its secretary, Dr. Leland E. Hinsie, New York State Psychiatric Institute, New York City. In the afternoon of the same day, the treatment of gonorrhea by fever is to be discussed under the chairmanship of Dr. Stafford L. Warren, Strong Memorial Hospital, University of Rochester, Rochester, New York. The secretary of this committee is Dr. Charles M. Carpenter, Rochester, New York.

Ministries of Health from many countries have indicated their intention to send official representatives to the conference.

The official language of the conference is to be English.

Those desiring to participate are requested to communicate with the chairman of the Section in which they are interested. The manuscripts of all papers must be submitted to the appropriate chairman before February 1, 1937. Selection for the program will be made by February 15.

All who plan to attend the conference are urged to register promptly with the general secretary, Dr. William Bierman, 471 Park Avenue, New York City. The registration fee is $15.

Federal Unemployment Assistance.—Grants totaling $222,609.98 to cover state budgets for the administration of unemployment compensation laws in California, Kentucky, Minnesota, and Vermont were announced by the Social Security Board today.

The amount granted to California was for $111,043.51, to cover the period from October 1 to December 31, 1936. The total amount that has been granted to California to date for this purpose is $363,704.85.

Fifth International Congress of Hospitals.—At the congress in Rome, May, 1935, the International Hospital Association decided to hold the 1937 sessions in Paris. Previous sessions had been held in Atlantic City, Vienna, and Knocke Sur Mer, Belgium. The meetings will occur during the International Exposition, which will group the exhibits and products of more than fifty countries under the general caption, "Art and Technology."

Dr. Malcolm T. MacEachern of the American College of Surgeons is vice-president of the International Hospital Association. The Federation of the Hospital Unions of France has been designated officially by the Ministry of Public Health to coöperate with the International Hospital Association, and the program and arrangements for the congress are now being completed.

The meetings will be held at Paris from July 6 to 11, 1937, and will include visits to some of the large hospitals, the Cancer Institute, and the principal agencies engaged in public health work. At the time of the congress, scientific and pleasure tours will be conducted in various parts of France.

Persons attending the congress will be granted important reductions in rates when traveling on French and foreign railroads. The exposition authorities also will give special privileges to visitors.

The chairman of the Committee on Arrangements for the congress is M. Albert Chenevier, who is secretary-general of the Department of Public Assistance in Paris. Further information may be obtained from M. Chenevier, No. 3 Avenue Victoria, Paris IV, France.

Social Security Account Numbers.—Emphasizing that it is to the employer's and the employee's own interest to secure Social Security account numbers well in advance of the date they are actually needed for the periodic information returns required by the Bureau of Internal Revenue, the Social Security Board recently advised those employees and employers, who have not already done so, to file their applications immediately. At the same time, the Board stressed the fact that current non-possession of an account number is not a bar to the hiring of an employee. Application for account numbers should be made as soon after entering on duty as possible, however.

Bureau of Internal Revenue regulations, the Board stated, require employers to file periodic information returns giving their own identification numbers, and the name and account number of each of their employees who is required to have an account number. The regulations also require an employer to file an application for an account number for any employee who has failed to do so by the time the first information return is due. The time limit for filing of the first return, covering the period January 1 to June 30, 1937, is July 31.

In response to queries on how to obtain and file application forms at this time, the Board outlined the application procedure now being followed by employers and employees as well as by those who enter business or become employed in included employments in the future.

Employees' applications for account number—Form SS-5—will be available upon request at all local post offices, at the field offices of the Board, at offices of Collectors of Internal Revenue, and at the offices of the Board in Washington. They may be returned to local post offices through the employer, through a labor organization, or by mail or personal delivery.

Employers' applications—Form SS-4—may also be obtained at local post offices, field offices of the Board, from Collectors of Internal Revenue, and from the Social Security Board in Washington. Completed employers' applications are to be sent directly to the wage records office of the Social Security Board in Baltimore, Maryland.

The Centennial of the University of Louisville Medical School.—The University of Louisville Medical School is the second oldest medical school now in existence west of the Alleghenys and the oldest municipal medical college in the United States. It celebrates its centennial March 31 to April 3, 1937, at Louisville, Kentucky.

The Alumni are urged to make their plans now to attend their alma mater and participate in the celebrations. . . . The historic Old Kentucky Home at Bardstown and Lincoln Memorial at Hodgenville are also included in the itinerary. Mammoth Cave is within easy motoring distance for those who wish to visit this natural wonder. Lexington and the famous race-horse stables are but a short distance from Louisville and in the heart of the bluegrass region.

Postgraduate Course on Neuropsychiatry in General Practice.—The medical staff of the Menninger Clinic will conduct its third annual postgraduate course on Neuropsychiatry in General Practice, April 19 to 24, inclusive, at the Menninger Clinic, Topeka, Kansas. The course this year will include a brief introduction to the fields of neurology and psychiatry and a specific application of this knowledge to the large group of cases of psychoneuroses, psychoses and psychogenic and neurologic disorders which every physician meets in his daily practice. Suggestions made by those who took the course last year have been embodied in this year's program, in order to make it applicable to the most common practical problems of the physician.

As in previous years, several guest speakers, prominent in the fields of neurology and psychiatry, will appear at the evening sessions of the course.

Bureau of Vital Statistics: California State Board of Health.—*Births*—During July there were 7,416 births registered as against 7,056 during the corresponding month last year. This brings a total of 47,497 for the first seven months of 1936, as compared with 45,614 for the similar period of 1935.

Marriages.—There were 5,932 marriages in September of this year, bringing the total for the nine months to 44,938, while in September of 1935 there were 5,286 marriages with a nine months' total of 41,590, an excess of 3,348 marriages registered this year over last year (during the first nine months).

Deaths.—There were 6,042 deaths in May and 5,908 in June, as compared with 5,958 and 5,651 during the corresponding months last year. During the first six months of the year, there were 38,730 deaths, as compared with 36,787 in 1935 and 34,352 in 1934—an increase of 4,378, or 12.7 per cent, within the last two years, and of 1,943, or 5.3 per cent, over last year.

During the first six months there was an increase of 13.2 per cent among the epidemic diseases accounted for largely by an increase of 160.0 per cent in measles, 89.3 per cent in whooping cough, 52.8 per cent in influenza, and 62.5 per cent in dysentery, over the first six months' period last year. On the other hand, the degenerative diseases, cancer, diseases of the circulatory system, nephritis and senility, increased 3.3 per cent over the number recorded during the first six months last year. There were 2,143 infant deaths from January to June, 1936, an infant mortality rate of 53.5 per 1,000 live births, as compared with 1, 952 deaths and a rate of 50.6 per 1,000 live births during the corresponding period last year.

Maternal deaths also show an increase in number, to be expected with the increased number of births. The increase is disproportionate, however, for while live births increased from 38,558 in 1935 to 40,081 in 1936, or 3.9 per cent, maternal deaths rose from 183 to 200, an increase of 9.3 per cent. The maternal death rate rose from 4.7 per 1,000 live births in the first half of 1935 to 5.0 during the first six months of 1936.

Suicides have increased from 763 to 798, an increase of 4.6 per cent, while external causes have increased 7.2 per cent from 2,812 during January to June, 1935, as against 3,015 in the same months of 1936. During the same period, pneumonia jumped from 2,100 to 2,469, an increase of 17.6.

LETTERS

Concerning Index Catalogue and Surgeon-General's Library.

LOS ANGELES COUNTY MEDICAL ASSOCIATION

Los Angeles, Calif., December 18, 1936.

To the Editor:—The medical profession considers that the Index Catalogue is one of the most valuable items for the advancement of the science of medicine, for the continued progress that the profession of medicine is making to protect the lives of our people, and to increase the health standards of this country. The Index Catalogue is of inestimable value.

The usefulness of the Index Catalogue is dependent upon the completeness of the files of medical publications contained in the library of the Surgeon-General's office—the greatest medical library in the world. To insure the value and usefulness of the Index Catalogue, the attached resolution adopted by the Los Angeles County Medical Association, with a membership of 2,400 doctors of medicine in Los Angeles County, was unanimously adopted at the annual meeting of the Association held December 17, 1936.

Respectfully yours,

E. VINCENT ASKEY, M. D.,
Secretary.

* * *

RESOLUTION

WHEREAS, The value and usefulness of the Index Catalogue is dependent upon the completeness of the files of medical publications contained in the library of the Surgeon-General's office—a public, national, medical library, the greatest in the world, serving in its present form of administration with satisfaction the medical profession and the medical libraries of our country; and

WHEREAS, In recent years the annual appropriation of the Congress has been wholly inadequate to provide sufficient funds to acquire the current medical books and periodicals issued throughout the world, so that they might be available for use throughout the country and for inclusion of the Index Catalogue; therefore be it

Resolved, That the Los Angeles County Medical Association, consisting of 2,400 members, urges Congress to appropriate annually to the library of the Surgeon-General's office an adequate sum for current medical books and periodicals and for the purchase of back publications lost during these recent years when the amount granted was grossly inadequate, thus depreciating the completeness and usefulness of the library's collection; and an additional sufficient sum annually, for as many years as may be required, in order to make for the greatest possible completeness of the collection and its Catalogue; and be it further

Resolved, That a sum be appropriated annually to defray the cost of printing regularly each year not less than one volume of the Index Catalogue; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this Association and sent to the President of the United States, the presiding officer of both Houses of Congress, the Secretary of War, the Surgeon-General of the Army, and to CALIFORNIA AND WESTERN MEDICINE with the request for publication; and that these resolutions be published in the Bulletin of the Los Angeles County Medical Association with the request that the members send a copy to their local members of Congress requesting their support of these measures.

Concerning the fight against cancer.

To the Editor:—The American Society for the Control of Cancer has recently organized a Women's Field Army and in March will put on an extensive campaign of education throughout the United States and attempt to obtain enlistments. The campaign will be national in scope, and it is expected that the President will issue a proclamation. The Society has asked all local committees which it has built up during the last few years to coöperate with it at this time in broadcasting our slogan: "Fight Cancer with Knowledge." . . .

It seems quite fitting that at the close of the first decade of the New York City Cancer Committee's work, we can look forward to still greater educational achievements by our combined efforts in the decade to come.

Fraternally yours,

(MRS.) ELLA H. RIGNEY,
Publicity Adviser.

December 7, 1936.

* * *

FACTS ABOUT CANCER

The most recent group to mobilize its strength against a great and cruel scourge is the Women's Field Army of the American Society for the Control of Cancer. This nation-wide organization of the women of America will conduct a steady and relentless war to save, not to take human life. It is the kind of happy wholesome fight against fear and ignorance in which everyone can and should willingly take part.

The enemy is a cold and subtle killer which last year took more than 140,000 lives in the United States alone. It has been estimated that there are between three and five hundred thousand sufferers from this disease alive today. Perhaps half of them might be saved if knowledge of the signs and symptoms which might mean early cancer were given to them and if they were also strengthened by courage to act on that information without delay.

Concerning donation to Lane Library: Letter of thanks.

STANFORD UNIVERSITY
OFFICE OF THE PRESIDENT

January 4, 1937.

My dear Doctor Warnshuis:

May I through you thank the members of the California Medical Association on behalf of the University for the recent check for $122.50 to be credited to the Lane Library Book Fund.

With much appreciation and every good wish for the coming year, I am

Faithfully yours,

RAY LYMAN WILBUR,
President.

Concerning proposed legislation on milk.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

January 14, 1937.

To the Editor:—The enclosed copy of a letter which I have addressed to the members of the California State Legislature from San Francisco is forwarded to you that you may know of these circumstances, and particularly of my reaction to the proposed legislation referred to.

Sincerely,

J. C. GEIGER, M. D.,
Director of Public Health.

* * *

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

January 14, 1937.

The Members of the California Legislature from San Francisco, Addressed.

I wish to invite your attention to two bills now before the Legislature: Heisinger A. B. 50 and Thorp A. B. 77. The passage of these bills will be inimical to the public health of San Francisco particularly, in that they are destructive to our local milk ordinance and milk inspection service.

Under our milk ordinance, the entire supply comes from non-reacting tuberculin-tested herds and is of but two grades: "Grade A pasteurized" (99.5 per cent) and "Certified" (raw) (0.5 per cent). The proposed legislation will remove these safeguards to force into the San Francisco market raw milk of other grades, including the so-called "Guaranteed" and others lower, as well as pasteurized grades of milk from non-tested and presumably tuberculous herds.

The placing of all milk inspection in the State undoubtedly will result in inadequate remote control and lower

standards than exist in San Francisco today. These proposals are basically wrong, from the viewpoint of efficient public health administration, not only for San Francisco, but for California.

These proposed legislative instruments are a distinct menace to public health, for they will open up channels of infection for tuberculosis and other diseases, especially in infants and children. I point these situations out to you that there may be no letting down to safeguards built up over a period of years, particularly since they may mean the difference between health and happiness on the one hand, and disease and death on the other. The passage of these bills would be a public health tragedy.

Sincerely,

J. C. GEIGER, M. D.,
Director of Public Health.

Concerning reorganization of Franklin Hospital medical staff.

To the Editor:—The medical profession in and about San Francisco no doubt will be interested in the following news item:

On November 4, 1936, at a general meeting of the German General Benevolent Society, the constitution and by-laws of the Society were amended to discontinue taking members with medical service. A second amendment was also unanimously passed at this meeting establishing the policy of taking in associate or group associates who shall receive, on periodic payment of dues, hospitalization. The benefit to be received by the associate or group associates is limited strictly to hospitalization. Laboratory and x-ray work are excluded because these services are held to be the practice of medicine. The associate or group associates shall have free choice in the selection of their physician.

The Society is legally bound to continue to take care of their present members, particularly those members possessing life certificates. The Board of Directors is strongly urging the present members to change their status to that of associate members.

This action removes the German General Benevolent Society as a potent future competitor of the medical profession. This organization has been active since 1852, and the Board of Directors and voting members are to be commended for the about-face at a time when so many agencies are encroaching upon the private practice of medicine. They coöperated completely with the suggested medical policy.

Likewise, if and when, the San Francisco County Medical Society and/or the local hospitals establish a constructive collective hospitalization program, Franklin Hospital will be ready to coöperate 100 per cent.

Yours very truly,

LEROY BROOKS,
Chief of Staff, Franklin Hospital.

* * *

Explanatory Note to Above Letter.—The German General Benevolent Society in San Francisco has given to its members, for seventy-five years, medical, surgical, and hospital care on the periodic payment of dues. The Society owns and operates the Franklin Hospital in San Francisco. The patient's choice of physician has been limited to the appointed or closed staff of the Franklin Hospital. The staff has given its professional care to members with practically no compensation.

On November 24, 1936, at a general meeting of the German General Benevolent Society, the by-laws were amended to discontinue taking members with medical care. At the same meeting, a second amendment to the by-laws was passed offering associate members hospitalization without medical care, with free choice of physician on a periodic payment plan. By this action the Franklin Hospital is no longer in direct competition with the medical profession.

The Board of Directors and voting members are to be commended for their coöperation at a time when so many agencies are making inroads into the private practice of medicine. They have set an example which could well be followed by other organizations.

MEDICAL JURISPRUDENCE†

TAX PROVISIONS OF THE FEDERAL SOCIAL SECURITY ACT AND THE CALIFORNIA UNEMPLOYMENT INSURANCE LAW

By HARTLEY F. PEART, ESQ.
San Francisco

The Federal Social Security Act was passed by Congress and approved by President Roosevelt August 14, 1935. This act is in reality a series of acts, and for the purposes of this discussion we shall deal specifically with but two portions of the Act:

I. OLD-AGE BENEFITS

In order to provide for old-age benefit payments or pensions for employees who have reached the age of sixty-five years, the Act provides for:

1. A wage tax on employees, commencing on January 1, 1937. For the first few years of the Act the tax is levied at the rate of one per cent of the wages earned, and progresses upon a graduated scale until the tax becomes three per cent of the wages in 1949, and continues at that rate thereafter unless the Act is subsequently amended. This tax is to be collected by the employer by deducting the amount of the tax from the wages of his employee as and when paid. The employer is made liable for the amount of the tax. The amount of this tax may not be deducted by the employee in computing his net income for regular income tax purposes.

2. An excise tax is levied upon the employer's payroll and at the same rates as above, with the following exception: Any wages paid to an employee in excess of $3,000 a year are not considered by the employer in determining and deducting the employee's tax or in determining the tax which the employer is to pay. The sum collected by the employer, together with the tax payable directly by such employer, is to be collected by the Bureau of Internal Revenue and paid into the Treasury of the United States, where an "Old Age Account" is to be set up.

Certain types of labor are exempted from the provisions of the Act. Agricultural labor, domestics, casual labor, employees of the United States, any state, counties, municipalities and subdivisions or instrumentalities thereof, officers or members of the crew of a vessel documented under the laws of the United States or any foreign country, individuals over the age of sixty-five, and employees of any organization operated for religious, charitable, scientific, literary, etc., purposes, no part of the earnings of which inure to the benefit of any private person, are all exempted from the provisions of this act.

All employers and all employees, with the exception of those included in the exempted fields noted above, are included within this act, *regardless of the number of individuals employed*, and it is to be remembered that the money so paid into the Federal Government is to be used to create old-age benefits for those employees who are included within the provisions of this act and whose employers were liable for the tax provided by this act to the Federal Government. The amount of the monthly benefit which becomes payable upon the employee attaining the age of sixty-five years and retiring, depends, of course, upon the amount of money which has been paid into the United States Treasury by reason of the wages earned by him. The minimum and maximum monthly payments are $15 and $85 per month, respectively.

II. FEDERAL UNEMPLOYMENT INSURANCE

The second taxing measure of the Social Security Act with which we are here concerned is sometimes termed the "Tax on employers of eight or more." It is also commonly termed the "Federal Unemployment Insurance Tax." In order to provide a form of unemployment insurance, the Social Security Act further provides for a tax on employers of eight or more. This tax is separate

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, containing copy submitted by Hartley F. Peart, Esq., has been established by the California Medical Association Council. Each issue will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

from and in addition to the tax previously discussed which was for old-age benefits. This tax is paid by employers and is not deducted from the employee's wages. The tax was at the rate of one per cent on the employer's *total* payroll between January 1, 1936, and December 31, 1936. It will be two per cent in 1937 and three per cent in 1938 and thereafter. This tax applies only to employers who on each of twenty days during the calendar year, each day being in a different week, employed eight or more persons. The money so collected is to be paid into the Treasury of the United States, where a fund known as "The Unemployment Trust Fund" has been created. Under the provisions of this statute, the following employers are exempted: Agricultural labor, domestics, service performed as an officer or member of the crew of a vessel on the navigable waters of the United States, service performed by an individual in the employ of his son, daughter, or spouse, and service performed by a child under the age of twenty-one in the employ of his father or mother, service performed in the employ of the United States Government, a state, county, municipality or political subdivision thereof, or of an instrumentality thereof, service performed in the employ of an organization operated exclusively for religious, charitable, etc., purposes, where no part of the net earnings inure to the benefit of any private individual. This federal act provides that if the state wherein the employer's place of business is situated adopts a suitable unemployment insurance plan, the employer may credit against his payment to the Bureau of Internal Revenue that amount of state tax which will not exceed 90 per cent of the federal tax. The purpose of this provision was designed to encourage the enactment of state laws patterned after the federal act. California has adopted such a law, which is known as the "California Unemployment Insurance Law." This is the third taxation statute under discussion here and will be considered in more detail below. Just how the funds collected by the Federal Government under this second taxing measure of the Social Security Act will be used for the benefit of unemployed individuals is not specifically set forth.

The federal act provides that those states which adopt their own plan, and which has been approved, will be granted federal money with which to finance the administration of the state plan.

CALIFORNIA UNEMPLOYMENT INSURANCE

The third related tax measure is entitled the "California Unemployment Insurance Law." This act was placed upon the statute books of this state on June 25, 1935, to conform to the general plan for unemployment insurance which was to be suggested to the several states by the federal act. Section 2 of the California act provides:

This act is enacted as a part of a national plan of unemployment reserves and social security and for the purpose of assisting in the stabilization of unemployment conditions. The imposition of the tax herein imposed upon California industry alone, without a corresponding tax be imposed upon all industry in the United States, would by the corresponding penalty upon California industry defeat the very purposes of this act set forth in Section 1.

It is further provided that the Act shall take effect only upon the adoption of legislation by the Federal Government providing for an unemployment insurance tax. The California act and the federal act are very similar. The same employers are taxed, to wit: those employing eight or more individuals on each of twenty days during the calendar year, each day being in a different week. Its benefits extend to the same employees, to wit: those employed by the employers last mentioned. Practically the same occupations are excluded. There is an important difference, however. The California plan is financed by both employers and employees. The employers' tax rate was fixed at .9 per cent for 1936, 1.8 per cent for 1937, and 2.7 per cent for 1938 and thereafter. These figures were chosen so as to enable the employer to take advantage of the credit allowance provided by the federal act. Consequently, a California *employer* being taxed under both the state and federal acts will not have to pay more than the percentage of his total payroll which is required by the federal act to satisfy both taxes. In addition, each employee is taxed .5 per cent of his salary for 1936, 1 per cent of his salary for 1937, and at the same rate for his salary for 1938 and thereafter. The law provides that employees shall not pay more than one-half of the amount paid by the employers. As a result, the employee's tax for 1936 was reduced to .45 per cent from .5 per cent. As in the case of federal tax for old-age benefits, the employee's share of the tax is to be withheld from the employee's wages by the employer and paid by him. This money is to be paid into an "unemployment administration fund."

There has been considerable discussion as to the constitutionality of each of the three taxing measures which have been briefly discussed above. As yet, there has been no decision by the Supreme Court of the United States as to the constitutionality of the Social Security Act and the two taxing measures therein provided, namely, the old-age benefit provision and the unemployment insurance provision. However, the Supreme Court of the United States has passed upon the constitutionality of the New York Unemployment Insurance Law, which is similar to the Unemployment Insurance Act of California. The United States Supreme Court, with eight of the nine judges sitting, failed to reach a decision, as the judges were equally divided in their opinions as to the constitutionality of the New York law. Consequently, the decision of the New York Court of Appeals, which court held the Act constitutional, had to be affirmed. No written opinion was rendered by the United States Supreme Court.

The Supreme Court of the State of California recently had occasion to pass upon the validity of the California act. In the case of *Gillum* vs. *Johnson, Treasurer of the State of California, et al.*, 92 Cal. Dec. 647, the court concluded that the Act was constitutional and ordered the defendants, the State Treasurer, the State Controller, and the Unemployment Reserves Commission of the State to comply with the provisions of the Act.

Cases involving the constitutionality of the Social Security Act have been filed in several of the lower federal courts, and within the near future we may expect a decision from the Supreme Court of the United States in regard to the constitutionality of this federal act.

SPECIAL ARTICLES

HOBBY EXHIBIT: LOS ANGELES COUNTY MEDICAL ASSOCIATION

"Interests far from the operating theater and the diagnosis chart are indicated in the current hobby show of Los Angeles County Medical Association members.

"Held in the Association's lounge, 1925 Wilshire Boulevard, the show will be open daily from 9 a. m. to 9 p. m. during the week of January 11. In charge are Dr. E. Vincent Askey, secretary, and S. K. Cochems, executive secretary."

The above are the opening paragraphs of an article which appeared in the Los Angeles *Times*.

Members of the California Medical Association will be able to appreciate how generous was the response to the request to members that they place on exhibition their "hobby collections" and own handiwork for the pleasure of fellows, by perusing the list of exhibits which follows and noting their character, as evidenced in the illustrations. The first annual hobby show of the Los Angeles County Medical Association was voted a great success. List of exhibits follows:

Howard Andrews, M.D.

Acclaimed as one of the finest collections of firearms in United States history; a display of some two hundred weapons for holster, belt and pocket, including the so-called pepper-box weapons, flintlock pistols, heavy dragoon models, the early pocket revolvers, and an exceptionally fine display of Deringer pistols, including a duplicate of the one used in the assassination of Abraham Lincoln.

Stephen G. Seech, M.D.

A display of rare Austrian stamps—just a small portion of Doctor Seech's collection.

Paul K. Sellew, M.D.

Landscapes in oil. Illustrating that art is not the least of our members' attainments.

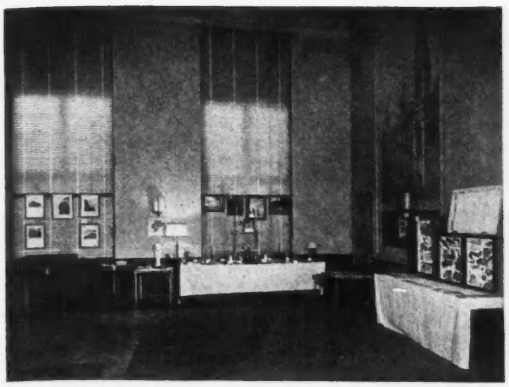

Fig. 1.—"Hobby Show": Los Angeles County Medical Association. Photograph of southeast corner of Lounge Room in Headquarters Building.

Katherine M. Close, M.D.
A seascape in tempra—a lovely bit of color and composition.

Philip S. Doane, M.D.
A carved bench and various items of beautifully carved work.

Randall Hutchinson, M.D.
Bead work. Exceptional design and workmanship.

Arthur Bowen, M.D.
Hand-tooled leather, including an exceptionally beautiful desk set, book covers, card cases and boxes.

Joseph Savage, M.D.
Heads in charcoal that show the work of a true artist. Doctor Savage also had on display an exquisitely made ship model, illustrating his other hobby.

Paul Z. Hebert, M.D.
An unusual technique of pictorial art in glass.

Saul Robinson, M.D.
A series of oils that lend art value and dignity to the display.

Sven Lokrantz, M.D.
Two exhibits, entitled "Fantasia" and "Land of Make Believe," in relief art. Two items in the display that created a great deal of attention and which illustrate many hours of painstaking work—truly exquisite offerings.

H. O. Bames, M.D.
A display, through stamps and literature, illustrating that Vienna is but three days away from Los Angeles.

F. H. Brandt, M.D.
The pencil is not a forgotten implement with which to create art. This is exemplified in the display of penciled landscapes by Doctor Brandt.

Salvatore R. Monaco, M.D.
Pottery of unusual design and beauty. A hobby that must be of great interest.

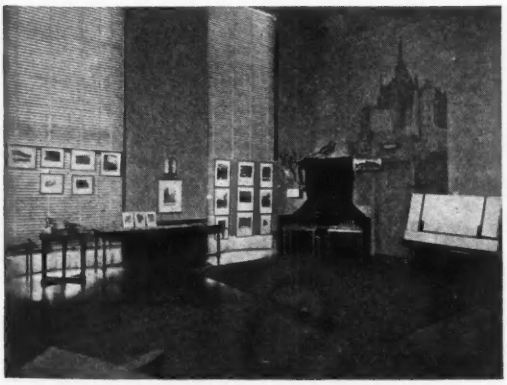

Fig. 2.—"Hobby Show": Los Angeles County Medical Association. Photograph of northwest corner of Lounge Room in Headquarters Building.

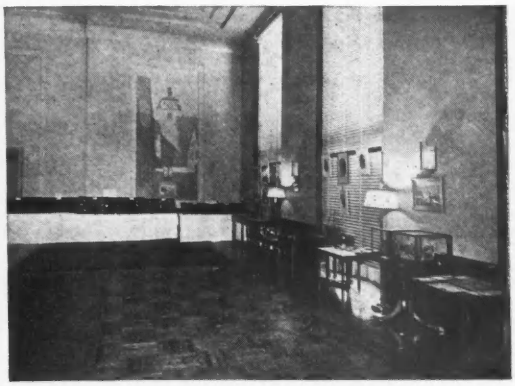

Fig. 3.—"Hobby Show": Los Angeles County Medical Association. Photograph of southwest corner of Lounge Room in Headquarters Building.

Lloyd Mills, M.D.
Two concertos for piano and orchestra and a rhapsody for two pianos.

Lowell S. Goin, M.D.
Excerpts from "Mass, in E flat." A composition by Doctor Goin.

George Laton, M.D.
Two compositions, entitled "Cavaliers" and "Prayer" (Masefield—Poems), Volume 1.

A. Marians, M.D.
Unusual specimens of colored photography.

Harold Lincoln Thompson, M.D.
The camera, as an instrument for art, has long been recognized. Doctor Thompson illustrates what may be done with this mechanism in the creation of true art. His landscapes, his portrait of a dog, and a study of Lincoln in the Lincoln Memorial at Washington, can only be appreciated by being seen.

Charles L. Lowman, M.D.
Unusual stamps from Doctor Lowman's extensive collection.

Harold Dewey Barnard, M.D.
Those who know Doctor Barnard might expect a large mounted rainbow trout, a big bear skin, an exceptionally fine deer head, and other items that delight the heart of the hunter, and these were all displayed.

Norval William Haddow, M.D.
Doctor Haddow's hobby is "climatology." Graphs to illustrate his interest in this hobby were displayed.

Harold F. Whalman, M.D.
Motion pictures in colors were shown at stated intervals during the exhibit by Doctor Whalman, who proved that colored motion pictures are not things for only commercial enterprise.

E. R. Lambertson, M.D.
California landscapes in oil, with the color and sunshine and atmosphere that is California.

Cora Smith King, M.D.
A small portion of an extensive collection of pressed plant life of the West.

Robert H. Kennicott, M.D.
The oils of Doctor Kennicott brought to the "Hobby Show" some of the modern spirit in art in still life and figures.

Marcia A. Patrick, M.D.
An oil in brilliant colors and a California seascape, both adding dignity and interest to the display.

Clinton D. Hubbard, M.D.
We are sorry indeed that space forbids Doctor Hubbard displaying his complete collection of sea shells from the seven seas. It is hoped that next year the entire collection may be shown. To say the least, it is most interesting and unusual.

Hans von Briesen, M.D.
Whittling is what Doctor Briesen entitled his exhibit; an exhibit of four lithographs of old paintings, the frames and the lithographs processed to give an antique effect. These attracted a great deal of attention. Also several carved wooden figures, including a box of chessmen.

Jonas C. Kopelowitz, M.D.
Wood working is Doctor Kopelovitz' hobby. On display he has various items, including a specially constructed card-table top and a toy aeroplane.

George Dock, M.D.
A series of photographic enlargements of some of the greater bits of scenery in this country. One of exceptional interest is the picture of a terrace and garden at Sir William Osler's house, 13 Norham Gardens, Oxford, England.
James Reeve Dean, M.D.
Precision rifle shooting holds Doctor Dean's interest. On display were various telescopes and precision rifles, together with the ammunition used.
Cyril B. Courville, M.D.
Firearms of the Civil War. Collectors of firearms show much interest in this complete collection. Weapons used by both the North and South are on display.
Frank E. McCann, M.D.
Pictorial photography. Four landscapes and an exceptionally fine study of an Indian head.
Raymond L. Schulz, M.D.
Intricate surgical instruments made by himself.
Orrie Edw. Ghrist, M.D.
Doctor Ghrist enjoys travel to far places. Several years ago he made a trip to the South Sea Islands. A very fine collection of stereopticon pictures, which he took himself, were on display for the enjoyment of visitors to the exhibit, with a stereopticon.
Henry G. Bieler, M.D.
Doctor Bieler is an artist in modeling and sculpturing. His pieces, modeled in wood, are of exceptional interest.
Louis K. Guggenheim, M.D.
Landscapes in oil. More of Doctor Guggenheim's work would have been welcome. One study in particular shows a very fine appreciation of the value of color.
Robert A. Campbell, M.D.
Wood working is shown to be truly an art in the display of Doctor Campbell. Various types of beautiful woods have been carved into beautiful things from the turning lathe of this member.
Edward L. Sudlow, M.D.
Doctor Sudlow's display—just a few old books—but what books! Every older visitor to the exhibit stopped at that display. A collection of McGuffey's Readers. Some of you may remember the first reader. It starts off with a picture of a dog: "The Dog, The Dog ran."
Frank B. Young, M.D.
An exhibit of comparative pathologic and physiologic osseous conditions. This display is of exceptional interest to the scientifically minded.
John W. Nevius, M.D.
An unusual and beautiful book, containing tuberculosis stamps collected from all parts of the world.

THE PRACTICE OF MEDICAL SPECIALTIES IN HOSPITALS*

A Report to the Medical Problems Group of the San Francisco Medical Society

The problem of the proper ethical and legal relationship between hospitals and certain medical specialties has been a vexatious one. It was left largely to individual action until recently, when the question of organized medicine approving the various relations was forced by the many schemes for hospital insurance. It has been argued that the specialists involved should not use the lever of the recognition of hospital insurance schemes as a means of solving their problems. That would certainly be true were it not for the fact that organized medicine is being asked for the first time to officially approve of certain practices which are probably both illegal and unethical. The fundamental problem has no connection with insurance, but concerns the legal and ethical aspects of the practice of certain medical specialties in hospitals.

CORPORATIONS AND MEDICAL PRACTICE

Let us first consider the legal aspects of the problem. There have been definite legal decisions regarding the right of corporations to practice medicine. The most recent one is that involving the Pacific Employers' Insurance Company. In that decision the court held that the company could not circumvent the law by employing licensed physicians to practice for it. A similar decision was that in the case of *People* vs. *United Medical Service, Inc.*, N. E. 157, which the Supreme Court of Illinois handed down on February 14, 1936. The court, in unmistakable language, proscribed corporations from practicing medicine even though they attempt to do so through the medium of salaried employees who are licensed physicians. The Supreme Court of the State of California has said: "That a corporation may not practice law, medicine, or dentistry, is a settled question in California." (*Parker* vs. *Board of Dental Examiners*, 216 Cal. 285, 14 P. (2d) 67.)

RADIOLOGY

That the practice of radiology is the practice of medicine is also a settled question. The House of Delegates of the California Medical Association in May, 1936, adopted a resolution reading in part:

Resolved, That radiology and pathology, being in all of their several parts and subdivisions the practice of medicine, etc.

The House of Delegates of the American Medical Association in May, 1936, adopted a committee report containing the following:

It reiterates the principle enunciated by the House of Delegates at Cleveland in 1934, "That the practice of radiology, whether for diagnostic or therapeutic purposes, constitutes in fact the practice of medicine." The action of the House of Delegates in 1925, establishing a section on radiology, confirms this principle.

Since radiology is the practice of medicine, it is illegal for hospitals to engage in the practice of it. However, some hospital administrators maintain that they are not practicing medicine when they manage only the business side and arrange with a licensed physician to provide the professional services. Let us look carefully into this contention. The practice of medicine is a contract between a patient who needs medical services and a doctor who can render it. Because that service is a personal as well as a professional one, the laws of various states have decreed that no person or corporation may come between the doctor and his patient. If the patient pays his money to the hospital, the contract is between the patient and the hospital, the latter agreeing to furnish the radiologist's service. The hospital is entering as a third party. The physician owes his allegiance to the hospital which employs him, and he can owe but a secondary and divided loyalty to the patient.

Very definite legal opinion is available on this subject. The Supreme Court of the State of California, in the case of *Painless Parker* vs. *Board of Dental Examiners*, made the following comments in answer to the contention that there is a distinction between the practice of dentistry and the purely business side of the practice:

The law does not assume to divide the practice of dentistry into that kind of departments. Either one may extend into the domain of the other in respects that would make such a division impractical if not impossible. The subject is treated as a whole. If the contention of appellant be sound, then the proprietor of the business may be guilty of gross misconduct in its management and violate all standards which a licensed dentist would be required to respect and stand immune from any regulatory supervision whatsoever. His employee, the licensed dentist, would also be immune from discipline upon the ground that he was but a mere employee and was not responsible for his employer's misconduct, whether the employer be a corporation or a natural person. On grounds of public policy such a condition could not be countenanced.

No one would dispute the right of any person to own a dental office equipment. The question most appropriate here is whether the thing owned is used for a given purpose by a person lawfully entitled to so use it. Ownership is not the absolute test of the right of use.

The court went on to say that if Parker's contention is sound, the Dental Practice Act is impotent to accomplish the purpose it was intended to serve, namely, to promote the safety, health, and welfare of the people of the State.

The legal side of the issue can be righted only by one method. The physician who provides the medical service must make the contract with the patient, and must collect the fee in such a way that the patient knows he is paying that physician.

REIMBURSEMENT TO THE HOSPITAL

Such being the case, how is the hospital to be reimbursed for the use of its space, equipment, materials,

* This report was made by a committee consisting of Robert Stone, M.D., Randolph G. Flood, M.D., Emery M. Seeburt, M.D., Leon O. Parker, M.D., president of the Medical Problems Group, and Frank Hand, M. D., secretary of Medical Problems Group, and submitted for publication by the committee.

etc., or whatever part of them it furnishes? At the present time there are three types of arrangement by which hospitals are reimbursed: First, salary—the hospital taking the money and paying the physician a stated percentage of the gross or net income of the department. Second, commission—the hospital taking the money and paying the physician a stated percentage of the gross or net income of the department. Third, reimbursement—the physician collecting the fees and paying the hospital an amount which is in relation to the space, etc., provided, *not* in relation to the income of the physician. Assuming that the fees are collected by the physician, the legal aspects are satisfied, but what about the ethical aspects if the money is turned over to the hospital to be divided on any of the above bases?

AMERICAN MEDICAL ASSOCIATION CODE OF ETHICS

Chapter 3, Article 6, Section 4, of the Code of Ethics of the American Medical Association states:

> It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group, or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary, or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.

In elaborating on this the Bureau of Medical Economics of the American Medical Association states:

> Where physicians become employees and permit their *services to be peddled as commodities*, the medical services usually deteriorate, and *the public*, which purchases such services, *is injured*.

From this we deduce that any arrangement which permits the hospital to profit from the "medical fees" is unethical. Whatever arrangement is made must be based on the space, equipment, etc., provided, not on the medical fees collected. The salary arrangement is thus definitely unethical. It makes whatever profit the hospital receives directly proportional to the fees collected.

COMMISSION OR PERCENTAGE BASIS

The commission or percentage basis is equally unethical on the above grounds. The hospital stands to profit directly in proportion to the fees collected. It is equally unethical on the ground of fee-splitting. When a hospital is on a percentage basis, it is directly interested in the amount of practice done. It is not limited by the rules of medical ethics and can go out and advertise its equipment, or even the professional attainments of the physician it employs. This has been done by some institutions, and so far as the physician is concerned, constitutes a voluntary or involuntary solicitation of patients. Such a percentage basis constitutes in essence an agreement by the physician to pay the hospital a definite amount for each patient it secures for him.

The remaining method is that of reimbursement on the basis of the full cost to the hospital of providing the department. In such an arrangement the physician agrees to pay the hospital a stated sum for the use of the space, etc., which it provides. This amount should be based on the value of the space occupied, just as it would be for space in an office building, plus items to cover whatever other expenses the hospital has in connection with the operation of the department. A proper amount can thus be fixed whether the physician is provided with space alone and provides everything else himself, or is provided with space, equipment and supplies by the hospital. If the hospital provides everything, it could base the amount charged on the number of patients examined. In other words, the radiologist would pay the hospital a stated amount for each examination performed. The amount paid by the radiologist bares no relation to the fee he collects. Can you imagine a hospital collecting an operating-room charge based on the amount of the fee collected by the surgeon?

WHO SHALL PRACTICE RADIOLOGY IN THE HOSPITAL?

Let us look briefly at the problem of who is to practice this specialty in the hospital. The license of a physician and surgeon gives to the person so licensed the right to practice any branch of the healing art. The State does not recognize specialists. Hence, under the State law any physician who so desires can make x-ray examinations, give x-ray treatments, make tissue examinations, etc., being limited only by his own conscience. Organized medicine, however, steps in to try to elevate the standards of medical care above that required by State law. The American College of Surgeons and the American Medical Association have specified that, if a hospital desires to be recognized as approved for interne training, it must have the radiologic and pathologic services performed by a duly recognized specialist. Hence, so far as approved hospitals are concerned, only qualified specialists can render these services. *In small* hospitals, or those that do not wish to be recognized and classified, any physician who is willing to assume full responsibility for all the acts performed and for the diagnosis or partial diagnosis rendered, can do so. It is to be borne in mind here that the courts have held that "delegated acts, done by a lay person helping a doctor, must be pure mechanical functions not requiring the exercise of judgment. The physician is responsible for all that is done, and must exercise all the judgments. A doctor cannot delegate the 'right to practice medicine,' but can accept lay assistance which is given directly in accordance with the instructions of the doctor." In those hospitals not desiring to be recognized, any specialty can be practiced by any physician who is willing to accept full responsibility for all acts done.

EMPLOYMENT OF LAY ASSISTANTS

In view of the fact that every physician is responsible for the delegated acts of his lay assistants, it is essential that the radiologist shall have the right of selecting his lay help. This involves the determination of the conditions of their employment. Of course, it is assumed that all appointments are subject to the approval of the superintendent. In the case of *Painless Parker*, cited above, the Supreme Court of the State of California ruled that it is impossible to separate the business and professional parts of the practice of dentistry. How much harder it is to separate the technical and professional parts of the practice of medicine! They are intimately bound up. To be legally correct, the technicians must be directly responsible to the physician for all acts they perform. The physician, not the hospital, is legally responsible for their acts.

OTHER FACTORS

One further point in connection with the reimbursement scheme presents itself. Many hospitals claim that they are entitled to an excessive amount on the grounds that they are giving a monopoly, a ready-made practice, and a certain amount of good will. Let us discuss these features item by item.

It is true that most hospitals have only one roentgenologist and that he gets all the practice in that hospital. This condition has arisen because of the necessity for the supervision of the acts of technicians by a licensed practitioner. If the x-ray examinations were to be done as surgery is done, only when the roentgenologist were present, and if roentgenologists were to run about from one hospital to another as do surgeons, then they would have to charge more for their services, because each act would take much more of their time. Moreover, each and every doctor on the staff of a given hospital wants the roentgenologist to be present at the hospital at the same time as he is there, so that he can talk to him relative to his patient. He wants a full consultation, not just a written report. Hence, it has seemed expedient for these specialists to limit their practices to one hospital and be present as much of their time as the work there warrants. Thus, not only does the hospital give a monopoly *but it also asks the monopoly* of the particular specialist's time, either full time or on demand. Under the proposed plan there is no necessity for a monopoly if the staff does not desire to monopolize one specialist's time. They could appoint as many specialists in any one specialty as they desired, and each of these could pay the hospital an amount proportional to the use they made of the department or to the number and kind of examinations done or treatments given.

The idea of furnishing a ready-made practice applies only to hospitals who have as roentgenologist a young man just out of training, or a failure type who has not

been able to build a practice of his own. Most hospital staffs should, and do want, as consultant roentgenologists men who have established reputations and whose abilities are known. Such men can have a practice outside as well as inside a hospital. Instead of getting from the hospital a ready-made practice, they are giving to the institution the added prestige and good will of having them on the staff. They are a drawing card for the hospital, inasmuch as other practitioners are going to take their patients to that hospital where they can get satisfactory consultations. Moreover, few hospitals have enough work originating in the hospitals to keep a well-qualified man occupied for his full time, or to keep their equipment and space in use enough to repay them for the investment they have made. Hence, non-hospitalized patients must be attracted to the departments. This is accomplished only by having a physician in charge who commands the respect of his fellow practitioners. It is he, not the hospital, that attracts this kind of practice.

With regard to the question of good will, the same arguments apply as above. The hospital may provide a little good will to a young man just starting; but once he is established he provides good will to the hospital. Would any physician who "buys" a practice consider it necessary to continue to pay a good-will premium to the doctor from whom he bought it, after he, the purchaser, has once established himself?

HOSPITALS MUST PROVIDE GOOD RADIOLOGIC SERVICES

On the other hand, it might equally well be argued that it is absolutely necessary for a hospital to provide the means of good radiologic services, if that hospital is to be patronized by physicians who might bring their patients to it. It is to be remembered that the paying patients in a hospital are not the patients of that hospital *but of the physicians* who bring them there. If necessary, the hospital might have to pay a premium to a good, well-qualified, well-established specialist for devoting his time to work in that hospital, thereby helping to keep the beds filled.

PLACEMENT OF RADIOLOGISTS ON HOSPITAL STAFFS

One more point remains to be considered, namely, the method of selecting and appointing to the staff the particular specialists concerned. Very few physicians are consciously aware of the fact that most roentgenologists are now virtually employees of the hospital. While the hospital management may ask for a committee of the staff to help them select the specialist concerned, the actual appointment is not made by, or even on advice from, the governing medical board, but by the superintendent. All too frequently, as is to be expected under such an arrangement, the appointment is made, not on the basis of professional attainments, but on the amount of money the hospital is to receive. Analyzed on the basis of the facts revealed in this report, this means that the hospital management appoints the physician who is willing to give them the biggest percentage of the fees he collects. This arrangement places the specialist concerned in a very unprofessional position. That man who adheres most strongly to his ethical professional rights stands the least chance of being employed.

A REMEDY

This situation can be remedied by the professional staff insisting that all physicians be appointed to the staff in the same way. If the hospital management provides the space, etc., required on the basis of their financial investment in it, then that amount would be the same whomsoever was appointed. They would be interested then in having the medical board appoint that specialist whom the board considered most qualified. The specialist selected would be on the same professional status in the hospital as any other physician. He would not be an "employee allowing the hospital to peddle his professional services as a commodity."

Likewise the termination of the appointment of each specialist should be in the hands of the medical board.

RECOMMENDATIONS

In conclusion we recommend the following as the legal, ethical, and professional arrangement for the practice of certain specialties in a hospital.

1. The specialist or specialists concerned should be selected as are the other members of the professional staff, namely, by the executive medical committee, on the basis of their qualifications, abilities, and professional standing.

2. They should then be appointed to the staff in the same manner as any other member of the staff.

3. The selected physician or physicians should then make arrangements with the hospital management to reimburse them on the basis of the value of whatever space, equipment, etc., the hospital is to provide. The radiologist, being legally responsible for the acts of his lay assistants, shall control the conditions of their employment.

4. The specialist so selected should make all contracts with the patients and make arrangements for the collection of his own fees.

5. The appointment should be terminated only for cause, as determined and recommended by the governing medical board by whatever name called.

6. If agreeable to the staff, and practicable, there can be no objection to the appointment of several specialists in the specialty, each to pay the hospital a pro-rated amount based on the number of examinations made or treatments given.

7. In those institutions where charity work is done, the radiologists must give their services free as do the other members of the staff. The hospital must bear the cost of such work (other than professional costs) as they do in the other departments.

EXAMPLE

8. Example 1. A hospital needs a radiologist on its staff. The medical executive committee of the hospital selects and recommends for appointment Dr. A. The Board of Trustees or similar body makes the appointment. Dr. A and the hospital management then determine and agree upon the monthly or per examination cost to the hospital of handling patients in the x-ray department. This cost will be based on whatever of the following items are provided by the hospital:

1. Space and janitorial service.
2. Heat, light, power, water, and telephone.
3. Laundry and linen supplies.
4. Interest on capital investment in equipment and furnishings.
5. Obsolescence on equipment and furnishings (which fund repays initial investment and covers replacements).
6. Supplies—tubes, screens, films, chemicals, stationery, etc.
7. Repairs.
8. Salaries of such lay help as the hospital provides.

Arrangement 1. Dr. A pays the hospital each month the amount determined as above.

Arrangement 2. The amount determined as above may be divided by the average number of treatments and examinations, and the cost per examination and per treatment determined. Dr. A pays the hospital that amount for each examination or treatment whether he collects from the patient or not.

Dr. B refers his patient to Dr. A (the radiologist) for an ex-ray examination or treatment. Dr. A performs the examination or treatment and renders a bill to the patient on his personal billhead. The patient may or may not pay. Regardless of that fact, Dr. A reimburses the hospital on the basis of either the first or second arrangement, above.

COMMENT

Is it possible to attain such an objective? The report of the Judicial Council of the American Medical Association to the 1936 House of Delegates of that body, which report was approved and adopted, contained the following:

> It would seem that in this time of extensive changes in hospital economics the point had arrived at which further marriages between hospitals and staff physicians that make the doctor of medicine the servant of the hospital should be stopped and a series of attempts at divorce among the marriages that have already taken place should be instituted. Our accepted ethical principles are adequate at the present time. . . .

The same House of Delegates adopted the following paragraph in the report of the Reference Committee on Reports of Officers:

> Your committee considers that the invasion by hospitals of the field of the practice of medicine should be condemned as a violation of the fundamental rights of physicians, and that it demands militant opposition, to the end that such activities cease.

From the hospital side we have the following statements from the president of the Catholic Hospital Association of America, Rev. Alphonse Schwitalla, as published in the May issue of *Hospital Progress:*

The annual meeting of the American Medical Association cannot but have, each year, the deepest possible significance for our hospitals. As the medical profession thinks, so hospital policies must be shaped or modified. . . . The physician felt in many localities the careless domination of lay groups, who could not possibly bring a professional attitude to bear upon medical problems. . . .

The maintenance of proper relationships between the hospitals and staffs is a fundamental issue. We cannot, therefore, but be convinced that when the House of Delegates of the American Medical Association "took a stand *against* hospitals which may wink at unethical practices or engage in them, "it was serving not only the medical profession, but also the finest ideals of hospital practice. We join in the sense of triumph which pervades the medical groups of the country. They have won a battle in which the issues were so basic that a redefinition of medical practice would have been imminent if the guide of warfare had turned in a different direction.

IN CONCLUSION

The legal and ethical principles established above are equally applicable to the other medical specialties when practiced in hospitals.

490 Post Street, San Francisco.

Respectfully submitted,
ROBERT STONE, M. D.
RANDOLPH G. FLOOD, M. D.
EMERY M. SEEBURT, M. D.
LEON O. PARKER, M. D., *President*
FRANK HAND, M. D., *Secretary.*

DEATHS AMONG FOREIGN RACES IN CALIFORNIA DECLINE*

A study of mortality in California, by races, for the period 1926 to 1935, reveals the fact that deaths of members of the white race have increased more than 2½ per cent during the ten-year period. Deaths among negroes during this time have increased slightly. Indian deaths have remained stationary, and noticeable decreases have occurred in the percentages of deaths among Chinese, Japanese, Mexicans, and members of other races.

MORTALITY AMONG WHITES

In 1926 there were 50,578 deaths in California of members of the white race, and in 1935 there were 64,325 such deaths recorded in California. The percentage of the total increased from 86.1 in 1926 to 88.73 per cent in 1935. The numbers of deaths and the percentages for each year follow:

Year	Total White Deaths	Per Cent of Total
1926	50,578	86.10
1927	52,951	86.20
1928	56,431	85.18
1929	55,939	85.59
1930	56,457	85.31
1931	58,592	86.79
1932	59,205	87.55
1933	59,803	87.96
1934	60,051	88.19
1935	64,325	88.73

NEGRO DEATHS

In 1926 there were 1,130 negro deaths, 1.92 per cent of the total registered in California. In 1935 there were 1,499 such deaths, 2.07 per cent of the total.

Year	Total Negro Deaths	Per Cent
1926	1,130	1.92
1927	1,098	1.79
1928	1,233	1.86
1929	1,211	1.85
1930	1,174	1.77
1931	1,245	1.84
1932	1,310	1.94
1933	1,367	2.01
1934	1,390	2.04
1935	1,499	2.07

* From the *Bulletin*, California Department of Public Health.

INDIAN DEATHS

While there were 283 Indian deaths registered in 1926 and 344 such events registered in 1925, the percentage of the total is practically the same for each year.

Year	Total Indian Deaths	Per Cent
1926	283	.48
1927	267	.44
1928	346	.52
1929	368	.56
1930	418	.63
1931	308	.46
1932	334	.49
1933	314	.46
1934	320	.47
1935	344	.47

CHINESE DEATHS

Chinese deaths dropped from 710 in 1926 to 539 in 1935. The percentage of the total fell from 1.21 in 1926 to 0.74 in 1935.

Year	Total Chinese Deaths	Per Cent
1926	710	1.21
1927	715	1.16
1928	725	1.09
1929	707	1.08
1930	641	.97
1931	611	.91
1932	633	.94
1933	590	.87
1934	525	.77
1935	539	.74

JAPANESE DEATHS

The number of Japanese deaths in California dropped from 814 deaths in 1926 to 683 in 1935. The percentage fell from 1.39 in 1926 to 0.94 in 1935.

Year	Total Japanese Deaths	Per Cent
1926	814	1.39
1927	787	1.28
1928	808	1.22
1929	769	1.18
1930	771	1.17
1931	732	1.08
1932	696	1.03
1933	693	1.02
1934	662	.97
1935	683	.94

MEXICAN DEATHS

There were 5,121 Mexican deaths registered in 1926, 8.72 per cent of the total. In 1928 there were 6,362 such deaths, or 9.61 per cent of the total registered in California. Deaths among Mexicans fell in 1935 to 4,659, or 6.43 per cent of the total.

Year	Total Mexican Deaths	Per Cent
1926	5,121	8.72
1927	5,524	8.99
1928	6,362	9.61
1929	5,943	9.09
1930	6,306	9.53
1931	5,570	8.25
1932	5,014	7.41
1933	4,779	7.03
1934	4,725	6.94
1935	4,659	6.43

DEATHS AMONG OTHER RACES

Year	Total Deaths	Per Cent
1926	106	.18
1927	88	.14
1928	344	.52
1929	426	.65
1930	411	.62
1931	455	.67
1932	430	.64
1933	446	.65
1934	418	.62
1935	451	.62

This study of mortality indicates reduced populations among the Chinese, Japanese, and Mexican races in California. The enforcement of immigration laws affects the Oriental population within the State, and the reduced Mexican population, since 1930, is indicated with marked effect in the reduced numbers of deaths. It is presumed that the increased proportion of deaths among members of the white race is due, in part at least, to the heavy migration of white laborers from other states where particularly unfavorable economic conditions have prevailed.

MEDICINE'S INTEREST IN THE NEXT CALIFORNIA LEGISLATURE*

By PHILIP KING BROWN, M.D.
San Francisco

The frontier must always be the place of trail blazing, and all the United States is interested in the working out legally of a plan for better distribution of medical care in California.

We of the medical profession agree that we know a better plan is needed, but we should like to work it out ourselves. Our leaders have said: "(1) Medicine is, in effect, society's trustee in matters of disease and injury. (2) Medicine accepts this responsibility with the realization that, in the last analysis, the food of society must be the sole aim of its public policies. (3) Medicine's first practical responsibility is to see that, as far as lies within its power, its services are available to all men." [1] "The medical profession is fully conscious of the needs of the sick and the poor, and that great white-collar class who need our help so badly, and will, through our Association, have a way to care for them worked out." [2] But in the end we have agreed upon no plan and have accomplished precisely nothing. In the meantime a lot of glorified collection agency plans have been put forth, not one of which in this state, or elsewhere, have offered any real solution to the problem of hospital support or adequate medical care on a basis of reasonable profit to its doctor, and anything like complete service to the small wage-earner.[3]

In the meantime two great national agencies of citizens have taken up the problem and demand action, and some three thousand industries in the country have taken the initiative in developing some sort of medical care for their employees.[4]

TWENTIETH CENTURY FUND

The first of the national agencies to interest itself in the subject is the Twentieth Century Fund and its three thousand credit unions, representing some two million people. Perhaps no single movement has done so much to keep the resources of the masses fluid and usable as this credit union plan of E. A. Filene, organized under common employers, buying their own stock and lending to each other at times of emergency or unusual strain. Such credit unions as the school teachers' in New York City have capital of several millions, and lend at a low rate. While 6,900 banks have failed during the depression, no credit union has failed. Another brilliant idea of Mr. Filene has been a study of what members borrowed for, and it developed that 22 per cent was to cover the expense of unexpected illness. So Mr. Filene has done two more memorable things: to have exempted legally from attachments a certain amount of a man's holdings in his credit union, and secure federal support for the plan. In every state in the Union there are federal agents, as well as the employers of the unions, engaged in promoting the movement.

Mr. Filene and his Twentieth Century Fund have been giving a great deal of study as to how these two million members can buy medical care on a safer, surer and more reasonable basis.

FARM BUREAU ORGANIZATIONS

The next great national movement has originated in the Farm Bureau organizations, chiefly here in California. A study of what San Joaquin County has done through its county hospital has convinced farmers' wives that the opening of county hospitals to citizens generally was the answer. Thirty of California's fifty-eight counties have hospitals that accept paying patients under different conditions.

It is the purpose of this brief article to point out the dangers, difficulties, and wholly inadequate service which would accrue to the public if either of these plans were carried out.

*An address delivered at the National Farm Bureau convention December 8, 1936, in Pasadena.

1 William A. Pusey, M. D., recently president of the American Medical Association, at the annual conference of secretaries of state medical associations in Chicago on November 18, 1936.

2 William Moloney, M. D., retiring president of the Los Angeles County Medical Association.

3 The reader is recommended to study the Alameda plan in this State and the Wayne County plan in Detroit.

4 Details in the forthcoming volume by Elizabeth Marshall of New York.

EXPERIENCE OF THE CREDIT UNIONS

First, the credit union forces, having found out that nearly one-quarter of the money borrowed from the unions by their members was for medical care, sought to devise plans for procuring it on more practical terms than were offered by private practice or charity. Mr. Evans Clark, secretary of the Twentieth Century Fund, has published a volume on Budgeting for Health, and in it he has expounded very ably all of the methods that have been devised for lessening the costs of medical care to the small wage-earner. His criticisms of these plans are good. More than that, Mr. Filene himself gave the first $5,000, which started seriously the Committee on the Costs of Medical Care. Both the profession and the laymen might easily feel that in such apparently understanding hands their several causes were safe, but somehow these able leaders were not good enough historians.

The age-old cause of lodge practice has seemed to appeal to the older credit unions in the East. They wish to accomplish what the medical profession regards as two utterly disastrous ends: the right of each union to hire doctors on salary, and the right of corporations to practice medicine. For sixty years, all over the United States, both of these principles have been fought vigorously by the organized profession, and the courts everywhere have sustained the rule that corporations may not practice medicine. Lodge practice has been an effort to buy medical care cheaply. All lodges have used their cheap medical service as an advertising influence, and the best of them pay $100 to $125 a month and hire one doctor for each one thousand members. Members are treated free; small fees are asked of dependents. Certain services are charged extra. The cost averages $2 a month. Some of the lodges send 85 per cent of this East for certain causes which they support. Others spend goodly sums on orphan asylums, old people's homes, care of their tuberculous, and hopelessly ill. Emphasis is put chiefly on the benefit which appeals most in some particular neighborhood. There is no uniformity in policy. A few good doctors have undoubtedly done lodge work for a starter, some have undertaken it for political reasons, and a few try seriously to carry out their obligations. Some country towns without doctors have devised no better way of getting one to settle in their midst than to establish and develop some sort of a lodge, and then look about for the cheapest doctor they can find. It should be obvious that with the growth of the science of medicine and the need for some specialization, this sort of practice promises little. Most lodge doctors have endured but briefly if they have had any ambition or ability. It is only fair to say that the western credit unions which have sought to act individually have made a good many studies of how medical service might be procured at a price more reasonable than possible at present, and have been brought to see that most states will require some additional legislation before anything can be done, and then they look forward to asking the organized profession to give them its best plan. It is quite possible that our next legislature will pass some enabling act putting all health insurance efforts under the Insurance Commissioner and some board like the State Board of Health, in order that all such plans may be sound financially and medically before they go into operation.

STUDIES OF THE FARM BUREAU ORGANIZATIONS OF CALIFORNIA: COUNTY HOSPITALS

The second mass action was proposed by the Home Economics Department of the Farm Bureau Organizations throughout California, who have circulated petitions to all of their members and as many others as they can interest, hoping to get action from local boards of supervisors, who will make demands upon the counties to the end that the county hospitals may be opened to anyone. The latter part of the ordinance which they are supporting reads as follows:

"And pursuant to Part IV, Title II, Section 4003, of the Political Code, 1 to 5 inclusive, and Section 4223 of the Political Code, the Board of Supervisors of the county of ——— do hereby ordain, under the mandate of the people, that the county of ——— shall operate the county hospital and out-patient medical services for the welfare of the people of the county; *that the part of the tax dollar which maintains the hospital and the out-*

patient medical service shall be the yearly insurance of the people that the hospital and medical service will be available when and if they need it *at the daily cost of the service, and the hospital* shall not be operated on a tax levy for care of indigents. For those unable to pay in full for the service, they shall pay any part of the cost which they are able to pay.

"Those incapacitated by age, disease, or accident, not able to pay any part of the cost, shall be cared for free, on the same standard of service as those who pay.

"The Board of Supervisors of the county of ——— do further ordain that there shall be no stigma of pauperism attached to the hospital service provided by the county, and that such service shall be regarded, supported, and utilized in the same democratic spirit which prevails with relation to any other public service operated, supported, and maintained by public funds."

The whole issue of the county hospital is one that needs revision, and there are a few states, and one municipality particularly, that have solved the problem satisfactorily. Michigan extends the open door of its county hospitals to the doctors of the state, and the large county hospital of Buffalo, New York, does the same. Patients are encouraged to have their doctors attend them, and every effort is made by the public authorities to keep as many as possible of the people who are handled in the county hospitals under the medical care of their own physicians. What they pay these physicians is a matter entirely between doctor and patient. If they can pay a small sum for hospital care, they are charged it.

The trouble in California is that the county hospital in many counties is either the only one or is the best one. Los Angeles has spent between fifteen and twenty million dollars on its county hospital, and it is not surprising that the small wage-earner looks with some bitterness on the fact that out of whatever taxes he pays, part goes to support a hospital to which he has no access.[5] The social service rule of the Los Angeles General Hospital states that if the family earnings are more than $60 a month no member of a family of four may enter the hospital. If the earnings are $60 a month or under, they are welcome. It is the feeling of the writer that every intelligent physician in the community will agree that out of the $61 a month for even one person there is nothing to be saved to provide medical care for any illness. The Social Welfare Department of the State, which has some supervisorial relation to this hospital, has no real control over it. Its authority is limited "to investigate and examine and make reports to the legislature on the conduct of institutions operated for the care of indigents." It is held by some counties that they are privileged to operate hospitals in which charges are made for certain patients, and they point to Section 4223 of the Political Code to justify their position. The claim is made, for example, by the San Joaquin General Hospital that Los Angeles, San Francisco, and Kern County operate under the pauper provision of Section 1. Section 4041.16 of the Political Code. The crux of the situation, however, lies in what was pointed out in a letter to Mrs. Turner of the Department of Social Welfare of Sacramento in which the legal department of the Attorney-General's office, in defining the term "county hospital," as used in the Kern County Hospital case, states that the legislature has never defined a county hospital, but that the decision of the court in the case of *Goodall vs. Brite* directed in its decree to the county and those officials in charge at the hospital "who should be admitted to its county hospital." The decision makes extremely plain that "no people of the class of persons described in paragraph 3 of the rules may be admitted to said hospital except in cases of emergency." Paragraph 3 authorizes the admission of persons unable to pay for and obtain proper and necessary medical, surgical or hospital care for themselves elsewhere than in the county hospital, deeming such persons obviously dependents, and leaving it to an admission board as to what proportion of the cost of hospitalization they are able to pay. As there are some thirty hospitals among our county hospitals who receive patients who pay something, this decision if maintained puts them all in the position of acting irregularly. It would be necessary for an act of the State Legislature to be passed to open county hospitals to the public generally. This decision is quite the reverse of an opinion of the Attorney-General written to the District Attorney of Sonoma County November 7, 1934, in which it was argued that certain patients who could pay something should do so. The Attorney-General quoted the rule about our state insane asylums which requires payment from those who can afford it. There is another aspect of the county hospital question which needs to be pointed out. The Social Welfare Committee has divided these hospitals into five groups, of which only the first, containing sixteen hospitals, is accepted as class "A" by the American College of Surgeons. The one thing about all of them, which is absolutely wrong, is that they have volunteer staffs. The writer believes that this is not wholly true, because the San Joaquin Hospital is mentioned among those sixteen, and all of its doctors are paid something, although most of them get merely $100 a month for what they do. The other four groups vary from a fair medical and surgical service, lacking one or more essentials, to boarding houses operated by a man and his wife in old wooden shacks where the county physician is telephoned to, to come and see anyone who seems to be sick enough to require some attention.

It would require $50,000,000 to buy land and equip decent county hospitals for those counties that lack them in this state, and then the charge per day would have to be in the neighborhood of $6 even in wards. The supervisors should take cognizance of the criticisms of the $3 rate by the Fourth Appellate Court, Civil No. 1761, January 30, 1936: "The method used in reaching the daily cost per patient was so inaccurate and unbusinesslike that the result would not reflect the true daily cost to the county." Property taxes, depreciation, insurance, and interest charges on the investment in land and building, all should be made part of the cost.

There seems to be one answer to this entire situation. The great indigent and small wage-earning class of the community will have to be supported in sickness by taxation, insurance, or a combination of both. Given a compulsory health insurance law, and absolutely class "A" county hospitals like those, for example, in Los Angeles, San Joaquin, and San Mateo, all of the small wage-earners who entered such hospitals would have their bills paid from the insurance fund; the county would have to (as now) pay for the care of its dependents. The one other big change which the organized medical profession should fight for is that first-class county hospitals should be opened to every licensed doctor, so that he might follow his patient requiring hospitalization until his discharge. It works wherever it has been tried, and it would seem to be in the interest of both the medical profession and the public.

909 Hyde Street.

[5] See "The Care of Dependents," a publication by the Los Angeles Budget and Research Department, p. 90, 1936.

THE CONFERENCE ON SYPHILIS*

More than five hundred persons responded to the call of Surgeon-General Thomas Parran of the United States Public Health Service for a three-day conference in Washington recently on the control of venereal diseases, especially syphilis. Representatives of the American Medical Association, officers of state medical societies, and practicing physicians attended, as well as health officers and social service workers. The conference was asked to consider the question of venereal disease control from six principal points of view. The reports that were adopted by the conference as a whole on the third day were in substance as follows:

1. Estimates were presented of the prevalence of syphilis in the United States. A minimum of 681,000 new cases of syphilis was declared to be the probable annual incidence of the disease. Prevalence in the population as a whole was estimated variously at from 5 to 10 per cent of the population, including syphilis in all its stages from initial infection to the late sequelae. . . .

2. The section on the public health control of syphilis stressed the necessity for carrying treatment facilities to all persons of all economic strata. Emphasis was placed, however, on the fact that no desire existed on the part of

* Excerpts from editorials published in *The Journal of the American Medical Association* for January 9, 1937.

the public health officials to undertake the treatment of all cases of syphilis at public expense. It was declared that whenever and wherever possible patients should be treated by family physicians in the usual manner and that the personal relationship of patient to physician should be maintained wherever possible. The section reported that in its judgment the treatment of indigent and borderline patients in clinics would be a necessity. Adequate social service for the clinic to ascertain the degree of ability to pay was dealt with in another section. Reporting of the venereal diseases was stressed as a necessity in their control. The section recommended that the Surgeon-General request reporting by name and address as in the case of other communicable diseases. This recommendation of the section was opposed from the floor of the conference and ultimately was amended to read, in effect, that reporting by name and address be encouraged where practicable, but that in other localities reports by number or by initials and date of birth be accepted for the present in order to allow opportunity for overcoming the well-known reluctance of physicians to report venereal diseases by name. The necessity for furnishing laboratory service gratis and for the free distribution of drugs needed in the treatment of venereal diseases through public health authorities was stressed. A recommendation to the effect that prophylaxis be regarded as an integral part of the syphilis program was opposed from the floor. The opposition, however, was overwhelmingly defeated and the report of the section, therefore, included the recommendation that prophylaxis be included in the antisyphilis program.

3. The section on treatment presented a voluminous report, of which the salient points were the importance of early treatment and the treatment of the pregnant syphilitic woman. Emphasis was laid on the necessity for continuous treatment except in the case of late syphilis in persons of middle age or beyond; on the importance of confining the distribution of drugs through public health departments to established preparations, namely, the arsenicals, bismuth compounds, mercury ointments, and possibly iodid preparations.

4. The section on medical follow-up of the venereal disease patient reported the importance and necessity for follow-up in certain types of cases. Much follow-up work can be prevented by efficient, courteous, and expeditious handling of patients on their first visit to the clinic. . . .

5. The section on coöperation of the private physician in the control of venereal diseases made a report which indicated the dual responsibility of the physician in any case of communicable disease, including the venereal diseases. This responsibility is for the patient and for the community. . . .

The principles here presented seemed in general to meet with the approval of all groups represented. Recognition was given to the fact that conditions in the United States differ widely in different localities and even sometimes within a single community, and that programs, subject only to general fundamentals, must be varied and adapted to meet local needs. . . .

In all probability most indigent patients in denser population centers will need to be treated in clinics. In smaller communities and rural areas, treatment of the indigent was recommended through the offices of family physicians. The recommendations included payment of the physician on such a basis as might locally be agreed on for services rendered to indigent patients. Certain questions were raised relating to the lack of uniformity of instruction in syphilology in the medical schools. . . .

CALIFORNIA STATE BAR CHASES AMBULANCE CHASERS*

The State Bar of California has a committee, known as Special Local Administrative Committee No. 1, whose duty is to investigate and institute prosecutions of ambulance chasers, both lay and attorney. The personnel of this committee is John E. Biby (chairman), John M. Bowen, and Robert M. Clarke; staff, Philbrick McCoy, counsel, and Herbert Hallner, special investigator.

The above-named committee has been successful in securing convictions and pleas of guilty in more than fifty cases. Many of the offenders have received jail sentences of 180 days and fines in the amount of $500. Among those convicted was a member of the medical profession.

Of interest to the medical profession is the fact that this committee has in several instances secured information to the effect that certain physicians are very active in the solicitation of business for certain attorney ambulance chasers. This condition appears quite aggravated among some of the physicians who conduct private emergency hospitals. One such offered medical treatment and hospitalization to an injured person if he would employ a certain attorney to prosecute his claim for damages, the cost thereof to be paid only out of any money recovered!

This State Bar committee frequently finds it difficult to prove the facts necessary to secure a conviction in these cases. Its investigations disclose that the attorney involved has received a written or telephone request from the injured person to call on him; and, when questioned, the attorney invariably says he did not know the request was instigated by the physician. The physician often excuses his conduct by stating that the injured person requested him to recommend an attorney.

The State Bar deserves commendation for the work it is doing to eliminate the evils arising out of ambulance chasing. Any member of the medical profession acquiring knowledge that a physician is in any manner aiding an ambulance chaser should report at once to any member of the State Bar committee or its staff, or to The State Bar, 440 Rowan Building, Los Angeles (Los Angeles telephone, Michigan 9551). Such coöperation with the State Bar will do much to purge both professions of the odium cast upon them by members who are aiding or coöperating as ambulance chasers.

* By J. E. B.

HEALTH INSURANCE PROPAGANDA*

On Monday, November 23, 1936, a newspaper of the city, the New York *Herald-Tribune*, gave its columns over to a piece of propaganda which deserves attention. Under date of November 22, 1936, and presumably coming from Washington, a feature article is written, headed "Health Insurance Study Is Instituted by Security Board."

Like all propaganda, the "news-spread" necessarily must be tacked to some event, and so this time we find it tacked to some casual recommendations made by Harry Hopkins, WPA Administrator, in a speech to the United States Conference of Mayors recently; and, incidentally, it is also tacked to a report of the Executive Council of the American Federation of Labor. Then, not giving either the speech made by Mr. Hopkins or the substance of the report of the Executive Counsel of the American Federation of Labor, the propagandist in question hides his identity under the statement, "A spokesman for the Social Security Board." For the rest of a column and a half of ordinary newspaper space there is nothing but argument and propaganda, and little or no factual news. In the end the reader is left to wonder *who* is advocating health insurance, who is putting forth the arguments for it, who says that it is to be considered purely as a tax measure, and who is it that is forcing attention to it and arousing argument.

The stress presented in the newspaper broadcast consists primarily in the fact that existing systems of unemployment compensation and old-age benefits "are generally believed in Security Board circles as measures to bring health insurance to the fore" and "almost all European countries have comprehensive plans of health insurance providing cash benefits in disability and invalidity and supplying medical aid." The plea ends with the statement that it can be conducted on a pay-as-you-go plan.

In the September 1 issue of the *New York State Journal of Medicine*, editorial note was made of the "lull before the storm." An ominous silence was noticed on the part of the protagonists for health insurance. We were then aware that the protagonists of health insurance had not quit. We rather resent the fact, however, that *government agencies* should engage in propaganda *to create a demand for something which the public has neither asked for nor needs.*

The news release also announces that more time to study the proposition is asked. We seriously recommend that it be studied; that comparison be made of the morbid-

* Editorial from *The New York Medical Week*, November 28, 1936.

ity and mortality statistics abroad with those here; that the uses which are made of preventive medicine abroad with that here be taken into account. We could go on at length, but of what avail to argue with those whose minds are made up. What can one expect from Walton Hale Hamilton, the economist head of the research division, a former member of the National Industrial Recovery Board! We know him through a different activity. He was one of those who, under Ray Lyman Wilbur, brought out the report of the Committee on the Costs of Medical Care which recommended health insurance; and he wrote his own special report on this thesis, which in itself was but an elucidation of the preconceived object of the committee, from the pen of its director, Henry H. Moore.

President Roosevelt has announced that there will be no measures proposed calling for the necessity of adding to our present heavy tax burden. Furthermore, the President, in his address in Jersey City, gave the profession assurances that it would be consulted and its wishes given attention when changes affecting medical practice came under consideration. Our conception of consultation and consideration does not envisage government spokesmen speaking for their preconceived ideas, long fixed, of how medical practice shall be arranged.

It has been jocularly said that the many governmental functionaries who speak publicly for the administration have so managed things that the Washington Administration can take more sides on any given question than is possible of geometrical demonstration. In this question of medical care, at least, let us have plain, straight thinking and speaking. There should be but one side to the problem. How to provide the highest possible *quality* of medical care to those of the public that need it, and to make provision that financial barriers shall not stop those needing it from getting it.

GUARDING THE SIGHT OF SCHOOL CHILDREN

The years of school life are usually the period of greatest stress and danger for eyesight, declared Dr. Edward Jackson of Denver, Colorado, at the annual conference of the National Society for the Prevention of Blindness, in Columbus, Ohio, recently. Doctor Jackson is Emeritus Professor of Ophthalmology at the University of Colorado. Speaking on "Guarding the Sight of School Children," he said:

"The prevention of blindness implies the conservation of partial sight, and is only complete when it is applied early in life. For the majority of people, the years of school life constitute the period of greatest stress and danger to their eyes.

"Accidents are responsible for 16 per cent of the causes of complete blindness, and more than half of these accidents occur to boys and girls under twenty.

"Prevention of disease has of late years been very widely applied, and results have far surpassed those of medicine and surgery in treating disease. Smallpox caused one-eighth of the blindness in the civilized world before vaccination was introduced, and still causes many cases of blindness where it is not practiced. But this proportion of blindness has been completely prevented by vaccination.

"Oliver Wendell Holmes, professor of anatomy, said that it was necessary to go back three generations to prevent some forms of disease. Many have approved of the statement, but we have not yet begun to apply prevention to one whole generation. Care of the eyes during school life is an attempt to make such an application to the prevention of blindness.

"In the school, we have light that is very inferior to the light of outdoor living. The sun at different times of the day gives light of 1,000 to 10,000 foot candles. In schoolrooms we rarely find light about 100 foot candles on the desk of the students, and sometimes it runs down to ten or five—or even two or one—and the children's eyes are expected to stand their school work under such bad conditions.

"Anyone can judge the effect of poor light by taking a telephone directory, which always has small print in it, and looking at it first in an ordinary indoor light, and then holding it where the sun will shine upon it. No one can miss the lesson of greater ease in using powerful light.

"When people think the light is too bright, it is usually because they have been trying to look at it. Our sources of light are not generally to be used like Neon signs, but to illuminate the desks or studies which we are trying to carry on. In the schoolrooms, many errors are tolerated with reference to the lighting; teachers and pupils need to be instructed in how to give their eyes the best chance by appropriate arrangement of the light.

"The correction of optical defects of the eye has been widely stressed and deserves all of the emphasis that has been placed upon it; but even with the optical defects exactly corrected, care and moderation need to be used for even the best eyes.

"The common causes of blindness that come with old age, like cataract and glaucoma, or hardening of the eyeball, have generally been threatening or actually progressing for years before they cause blindness. In a person of sixty-five with beginning senile cataract, it is probable that it will be fifteen years before he is unable to read and probably twenty years before he has to have the cataract removed. This time allows abundant opportunity for preventing the diseases that destroy sight in old age."

A PERTINENT QUESTION

Is it common sense to let a healthy, young mother die in childbirth at the very beginning of her productive and creative years because of *ignorance and negligence?* Motherhood is a question facing not only expectant mothers and fathers, but the community at large. Each community must recognize its responsibility in the education of its young people for the responsibilities of parenthood, so that they may know how and when and where to seek and secure adequate medical and nursing care when a baby is on the way.

What should young people know to prepare them for parenthood? There are ten simple facts which should be included in the education of every young person. Each should know that:

1. A baby lives for nine months in its mother's body before it is born.
2. An expectant mother should seek the advice of a competent doctor as soon as she *thinks* a baby is coming.
3. Throughout pregnancy the doctor should be consulted regularly so that he may be on guard for the first suggestion of beginning abnormalities.
4. When in doubt, the doctor's advice should be secured; it is better than that of friends or relatives or neighbors.
5. The mother's daily routine should be based on common-sense living—no burning the candle at both ends.
6. The responsibility for having a baby is as much the father's as the mother's; he should help his wife follow the doctor's instructions, boost her spirits when she is down, and relieve her of worry and fatiguing physical work.
7. If the baby is to be born in a hospital, a good one should be selected; approval by the American Medical Association Council on Hospitals or the American College of Surgeons is the hallmark of a good institution.
8. If the baby is to be born at home, preparations should be made in advance under the direction of the doctor or nurse.
9. The mother should remain in bed at least ten days after the baby's arrival, and should do her first mothercraft under supervision.
10. A detailed plan should be made for the baby's care before it arrives so that things will run smoothly from the very beginning.

All parents should see that their children, as they grow to maturity, know thoroughly these basic facts. If they shirk their responsibility, they are missing one of the greatest challenges which comes to a parent. It is also the responsibility of various community organizations to help train young people for parenthood. The school should endeavor to help each pupil develop a wholesome attitude toward the facts of life; the church a high moral code; the settlement houses, Boy Scouts, Girl Scouts and similar organizations a strong, sturdy character. If these important units in our society shoulder fully their responsibilities in preparing young people for parenthood, we shall find not only a reduction in our maternal deaths, but also an improvement in marital relations.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. X, No. 2, February, 1912

Special Notice:

Forty-second annual meeting of the Medical Society of the State of California.

Del Monte Hotel, Del Monte, April 16, 17, and 18, 1912.

Railroad rates the same as usual; one and one-third fare for the round trip. . . .

From Some Editorial Notes:

Owen Bill.—A number of requests for a copy of the last Owen bill to create a Department of Public Health have been received, and as the matter is of the greatest importance to public health, the *Journal*, elsewhere in this issue, prints the bill in full. It will probably be some time before the Congress will enact any law of this nature, and it is quite possible that when such a law is finally passed it will differ somewhat from the present proposed measure. . . .

* * *

Exploiters of Nostrums.—A good many of the most prominent physicians and surgeons in this country are helping to exploit and promote the use of some unspeakably noisome nostrums. Some of the "leaders of the profession"; some of those we are all in the habit of looking up to; some of the leaders in the American Medical Association, are doing just this, though they may not realize it. How? By contributing articles to so-called medical (?) or surgical (?) journals that accept the advertisement of these rotten things. . . .

* * *

Medical Defense.—Though the coöperative plan of defending our members in all actions for alleged malpractice has been in successful operation since July 1, 1909, and although, parenthetically, *no judgment has been entered against any practitioner in this State since that time*, a number of our members do not seem to understand it. For this reason, and for the reason that certain insurance companies have seen fit to make untrue remarks, it seems wise to set forth, in full, the general plan and scope of the work, rules, etc. The plan itself is the simplest form of coöperation; the members of the Society have decided that, through the machinery of the State Society, they will defend each other in all actions for malpractice that may be brought against members. To cover the cost, a small amount was added to the annual assessment, and it has been found to be ample. The rules laid down by the Council and prepared by our attorney, and subsequently approved by the House of Delegates, are about as simple as any rules could be.

First: All communications must be made to the Secretary of the State Society, Butler Building, San Francisco, California. This is in order to avoid confusion or doubt and concentrate all correspondence in one office.

Second: If a suit is threatened, do not wait for it to be filed, but notify the secretary immediately. The matter is then placed in the hands of our attorney and, as a rule, no suit is brought.

Third: Be sure that you are at all times in good standing (dues fully paid up) in your county society. Only members in good standing in a county society (and therefore in good standing in the State Society) will be defended.

Fourth: The alleged malpractice must have occurred after the first day of July, 1909, and at some time when the defendant was a member in good standing in his

(Continued in Front Advertising Section Page 14)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.
Secretary-Treasurer

Board Proceedings

The following citations have been issued returnable at the next regular meeting of the Board of Medical Examiners, to be held at Independent Foresters Hall, Los Angeles, commencing February 8, 1937:

Edward H. Anthony, alleged narcotic dereliction.
Robert V. Baker, violation of probation.
James H. Beggs, conviction, Pacific Coast Abortion Ring.
Samuel D. Burgeson, Jr., alleged narcotic dereliction.
Frank T. Cary, violation of Harrison Narcotic Act.
S. N. Chernyh, alleged narcotic dereliction.
John E. Cummings, continued from October meeting.
Merton E. Eastman, aiding and abetting unlicensed practitioner.
Thomas Flint, Jr., narcotic addiction.
Henry L. Gardner, continued from October meeting.
James Harvey Johnston, narcotic conviction.
Oscar Charles Long, violation of Harrison Narcotic Act.
Samuel C. Long, alleged illegal operation.
Thomas S. Long, use of fictitious name.
L. J. Otis, alleged narcotic dereliction.
Allen H. Peek, alleged narcotic dereliction.
Jesse C. Ross, conviction, Pacific Coast Abortion Ring.
Alfred H. V. St. John, conviction, Pacific Coast Abortion Ring.
Leo M. Schulman, alleged narcotic dereliction.
Francis W. Steddom, alleged narcotic dereliction.
William D. Teepell, fictitious name.
George E. Watts, conviction, Pacific Coast Abortion Ring.
Henry C. Wallace, narcotic violation.
C. B. Wiley, commitment.
Glen G. White, alleged illegal operation.
Edgar H. Williams, alleged narcotic dereliction.
Thomas D. Wyatt, continued from October meeting.

News

"California doctors apparently are not interested in $200 a month positions with the State. The Personnel Board found it necessary to postpone two examinations for Civil Service positions because an insufficient number of doctors applied. One position, that of Assistant Medical Director of the State Industrial Accident Commission, is located in San Francisco, and pays $200 per month for part-time work. The other position, as Assistant Surgeon in the Veterans' Home at Yountville, pays $200 per month plus maintenance for the surgeon and his family." (United Press dispatch, dated Sacramento, December 28, and printed in the San Francisco *News* December 28, 1936.)

Recent inquiry came from Louisiana regarding an individual named S. H. Staples, who falsely claims to be a graduate of the University of California Medical School and to be licensed under the Medical Practice Act of California. Just another impostor!

"Roy L. Martin, fake eye doctor, who in April, 1931, fleeced Dan Carey of this county out of $500 on a promise of a cure of eye trouble, has been arrested in Los Angeles County, but so many charges are awaiting him that it is doubtful if he will be returned here for trial. He will likely face federal charges of using the mails to defraud. Orange, Stanislaus, Riverside, and Sacramento counties are among other counties having charges against Martin. His arrest came as the result of a circular issued by

(Continued in Front Advertising Section Page 22)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.